

SPIE Photonics West

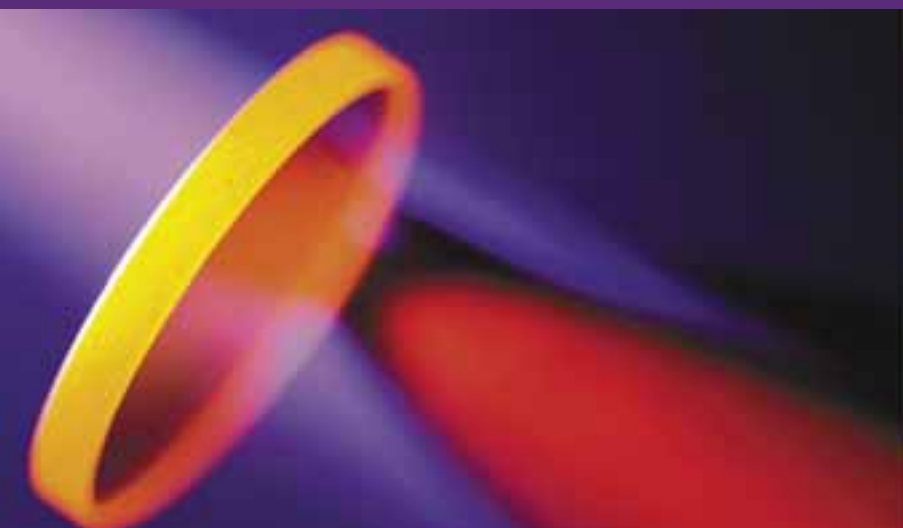
2009
Exhibition
Guide

BIOS Exhibition: 24-25 January 2009

Photonics West Exhibition: 27-29 January 2009

San Jose Convention Center

San Jose, California USA



SPIE

Connecting minds. Advancing light.

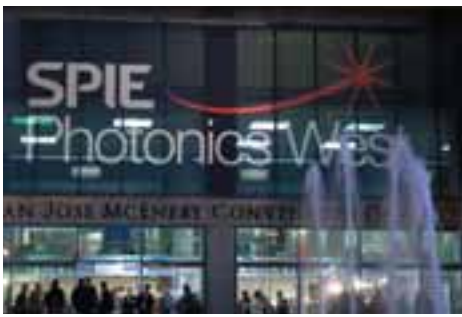
THE PULSE OF THE INDUSTRY

PHOTONICS MEDIA

Photonics Spectra
EuroPhotonics
BioPhotonics
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Photonics.com
E-newsletters
Photonics Directory

www.photonics.com

The background of the cover is a complex, abstract composition. A large, central orange sphere is covered in intricate, overlapping green and red patterns that resemble a biological or molecular structure. To the left, a smaller blue sphere is partially visible. The lower portion of the image features several stylized human figures in black and red, standing on a colorful, geometric base. The overall aesthetic is futuristic and scientific, with a dark background that makes the vibrant colors stand out.



SPIE Photonics West

The Global Shopping Center for Light-Driven Technologies

The world's largest exhibition on the entire spectrum of photon-based technologies! From lasers to optoelectronics manufacturing; from the latest microphotonics to the most cutting edge nanotechnology applications!

BIOS Exhibition: 24–25 January 2009

Photonics West Exhibition: 27–29 January 2009

San Jose Convention Center

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BIOS Exhibition

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Photonics West Exhibition

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Photonics West is an industry event sponsored by



SPIE Connecting minds.
Advancing light.

General Information

Exhibition Hours

BiOS—Biomedical Optics Exhibition

San Jose Convention Center, Hall 1

Saturday 24 January 1:00 to 5:00 pm
Sunday 25 January 10:00 am to 4:00 pm

Photonics West Exhibition

San Jose Convention Center, Exhibition Halls 1-3,
Exhibition Foyers, and South Halls 1-2

Tuesday 27 January 10:00 am to 5:00 pm
Wednesday 28 January 10:00 am to 5:00 pm
Thursday 29 January 10:00 am to 4:00 pm

Onsite Registration and Information Hours

San Jose Convention Center, Street Level

Saturday 24 January 7:15 am to 5:00 pm
Sunday 25 January 7:15 am to 5:00 pm
Monday 26 January 7:00 am to 5:00 pm
Tuesday 27 January 7:30 am to 5:00 pm
Wednesday 28 January 7:30 am to 5:00 pm
Thursday 29 January 7:30 am to 4:00 pm

Multiple facilities in downtown San Jose are used for conferences and courses, so please allow yourself enough time to register, pick up your materials and possibly walk to a nearby facility before your meeting or course begins.

Food and Beverage Services

Coffee Breaks

Complimentary coffee will be served twice each day at approximately 10:00 am and 3:00 pm on the exhibition floor.

Meals and Refreshments

Refreshment Purchases

For attendee purchase of light refreshments, including continental breakfast, specialty carts will be set up in the foyer of the Convention Center Saturday through Thursday.

Cash Lunches and Exhibition Concessions at Exhibition Halls 1-3, South Hall 1.

A cash sandwich bar will be available in the foyer of the Convention Center Saturday through Thursday.

Visit the Exhibition Concessions located in the back of the exhibition halls on Tuesday-Thursday featuring domestic and international cuisine. They will serve hot and cold snacks, beverages, deli-type sandwiches, salads, hot entrees, and pastries and will be open during exhibition hours.

Free Popcorn

Popcorn carts will be located in Exhibition Hall 3 and South Hall 1 and will be open from 11:00 am to 3:00 pm Tuesday through Thursday.

Course and Workshop Materials Desk

Located near the SPIE Registration Area

Open during Registration hours

If you have registered to attend a course, please stop by the Course Materials Desk to pick up your course notes and to find out where the class will be located. Pickup the latest Education Services catalog to see the many courses SPIE has available at the symposia, on video, DVD, and CD-ROM; and to discover the opportunities of customized In-Company courses.

Product Locator Kiosks

Convention Center Foyer and South Hall 1

Find your way around the Exhibition the easy way...perform a product or key-word search, review the Exhibitor Product Demos, print out the results, and be on your way in no time! You'll find kiosks in the Foyer area, outside the main entrance to the Exhibition Hall in the Convention Center, as well as the West End of South Hall 1.

Policies

Underage Persons on Show Floor

For safety and insurance reasons, no persons under the age of 16 will be allowed in the exhibition area during move-in and move-out. During open exhibition hours, only children over the age of 12 accompanied by an adult will be allowed in the exhibition area.

Unauthorized Solicitation

Unauthorized solicitation in the Exhibition Hall is prohibited. Any non-exhibiting manufacturer or supplier observed to be soliciting business in the aisles, or in another company's booth, will be asked to leave immediately.

Unsecured Items

Personal belongings such as briefcases, backpacks, coats, book bags, etc., should not be left unattended in meeting rooms or public areas. These items will be subject to removal by security upon discovery.

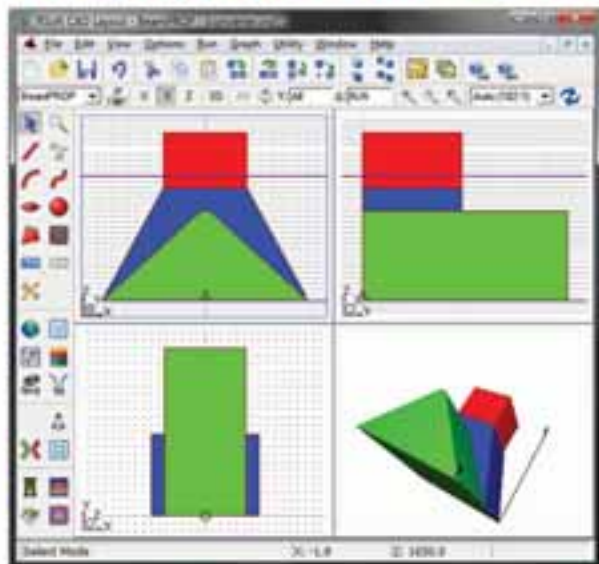
Audio/Video/Digital Recording Policy

In the Meeting Rooms and Poster Sessions: For copyright reasons, recordings of any kind are strictly prohibited without prior written consent of the presenter in any conference session, course or of posters presented. Each presenter being taped must file a signed written consent form. Individuals not complying with this policy will be asked to leave a given session and asked to surrender their film or recording media. Consent forms are available at the Speakers Check-In Desk.

In the Exhibition Hall: For security and courtesy reasons, photographing or videotaping individual booths and displays in the exhibit hall is allowed ONLY with explicit permission from onsite company representatives. Individuals not complying with this policy will be asked to surrender their film and to leave the exhibition hall.

VISIT THE APPLICATION GALLERY ON OUR NEW WEBSITE!

Designing a Mode Converter

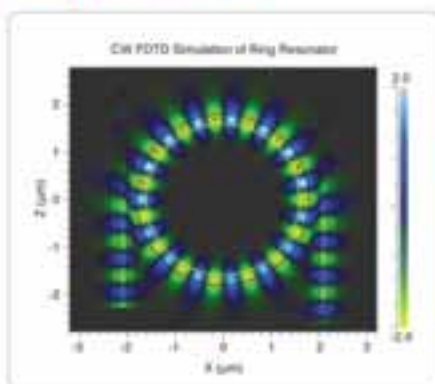


BeamPROP™

RSoft's Application Gallery, which can be browsed at www.rsoftdesign.com, contains numerous examples of passive and active component designs as well as system and network simulations. The Application Gallery examples illustrate the type of applications that can be addressed using the RSoft Component Design Suite or RSoft Optical Communication Design Suite. These examples can be browsed by either product used or application area.

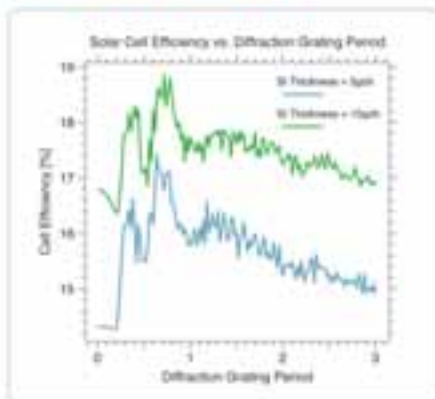
If your specific application interest is not addressed, please contact RSoft Design Group at info@rsoftdesign.com.

Modeling a Ring Resonator



FullWAVE™

Solar Cell Efficiency



DiffractMOD™



Go to rsoftdesign.com to view more application samples. ..

General Information

SPIE Onsite Services

SPIE Marketplace & Membership Services

Convention Center lower arcade

Open during Registration hours

The SPIE Marketplace is your source for the latest SPIE Press books, Proceedings, and Educational and Professional Development materials. Become a Member of SPIE, explore the Digital Library, and take home a souvenir.

Press & Media Center

The Press & Media Center provides press conference facilities, refreshments, and press releases from exhibitors. Credentialed media are invited to communicate news via the provided telephone and high-speed internet connections. Registration and exhibition fees are waived for working journalists and editors. Preregister by e-mailing name, organization, title, address, e-mail, and phone number to media@spie.org.

Internet Access

Convention Center – Arcade Area, Street Level

Saturday – Wednesday 7:30 am to 6:00 pm
Thursday 7:30 am to 4:00 pm

In South Hall 1

Tuesday 10:00 am to 5:00 pm
Wednesday 10:00 am to 5:00 pm
Thursday 10:00 am to 4:00 pm

At each of these locations will be multiple workstations allowing attendees to access their internet e-mail during the conference, and several Ethernet connections to use with your personal laptop. There will be a 10-minute time limit per each person's internet session.

WiFi

Complimentary WiFi access for attendees with 802.11b wireless enabled laptops and PDAs will be available Saturday through Thursday in the Ballroom concourse (east end) and in the Arcade (lower level) of the Convention Center near the SPIE Marketplace.

Business Services

SPIE Copy Center

Saturday through Thursday during registration hours San Diego Copy will provide a copy service during the week for symposium attendees. The rates are 5 cents per copy and \$1 per transparency (\$2.50 for color). The Copy Center will be located near registration.

SPIE Message Center

San Jose Convention Center, located near registration

Messages will be taken during registration hours Saturday through Thursday by calling: 408-271-6000.

Luggage/Package Storage and Coat Check

Convention Center – Street Level Arcade

Saturday through Thursday

Complimentary luggage/package and coat storage will be available to attendees.

Please note hours of operation posted onsite. If you intend to stay later than closing time, you will need to claim your checked items before it closes.

Attend the SPIEWorks Career Fair!



Exhibition Level, Convention Center, Almaden Concourse near the Hilton Hotel Entrance

Tuesday 27 January 10:00 am to 3:00 pm

Wednesday 28 January 10:00 am to 3:00 pm

Top employers are coming together to interview and hire engineers and scientists like you. The SPIEWorks Career Fair at Photonics West is a great place to:

- Get 'face to face' time with employers and interview on the spot
- Learn more about the jobs available in our industry
- Network!

Free Admission; Registration Required.

Whether you are looking for a better job, re-entering the workforce or just starting your career, the SPIEWorks Career Fair is the place to start!

In addition to the onsite recruitment activities listed above, SPIEWorks offers you online services to help you with your search for employment before, during, and after the conference. Visit spieworks.com to post your resume, view jobs, or sign-up for "Job Alerts."

Free Services for Employers

- Stop by the SPIEWorks booth in the Career Fair and gain access to our proprietary resume database at no charge.
- Post jobs for free. That's right, there's no charge to post jobs to the Photonics West Career Fair. Go to spieworks.com, create an account and sign-in to post jobs online. Your free job(s) will be live 26 January–1 February.

For information on future recruiting events contact Dave Baggenstos at +1 360 715 3705 or email sales@spieworks.com

Child Care Services

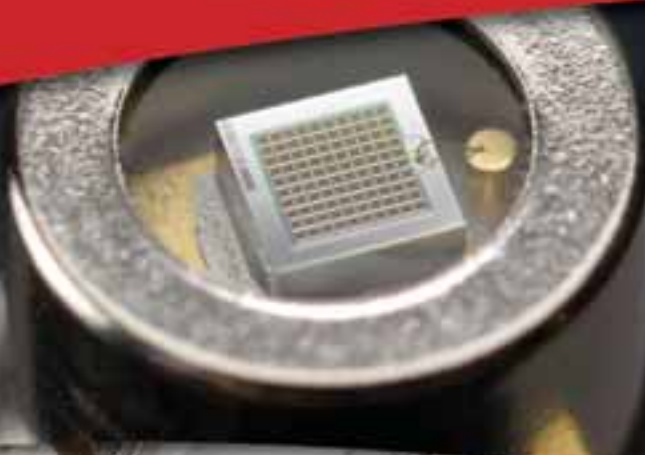
A few child sitting services available in San Jose are as follows.

1. **Bay Area 2nd MOM Inc.**, Hotel Nanny Service, Toll Free Phone: 1-888-926-3666, or (650) 858-2469, ext. 109. Fax: (650) 493-6598, Email: oncall@2ndmom.com or parentcounselor@2ndmom.com, Website: www.2ndmom.com
2. **Sitters Unlimited**: Toll Free Phone: (408) 452-0225, E-mail: info@bayareasittersunlimited.com or www.bayareasittersunlimited.com
Note: SPIE does not imply an endorsement or recommendation of these services. They are provided on an "information-only" basis for your further analysis and decision. Other services may be available.


Visitor Information Center

A Visitor's Information kiosk is located in the main lobby of the Convention Center and will be open during show hours for sightseeing, shopping, and restaurant information.

Diverse Technologies for You



Multi-Pixel Photon Counter



Photomultiplier Tubes



EM-CCD camera

Booth 826 & 827

Come visit us to see the latest in low-light detection technology ... as well as integrated MOEMS-based products, TDI image sensors and cameras, and high-brightness light sources.

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PHOTON IS OUR BUSINESS

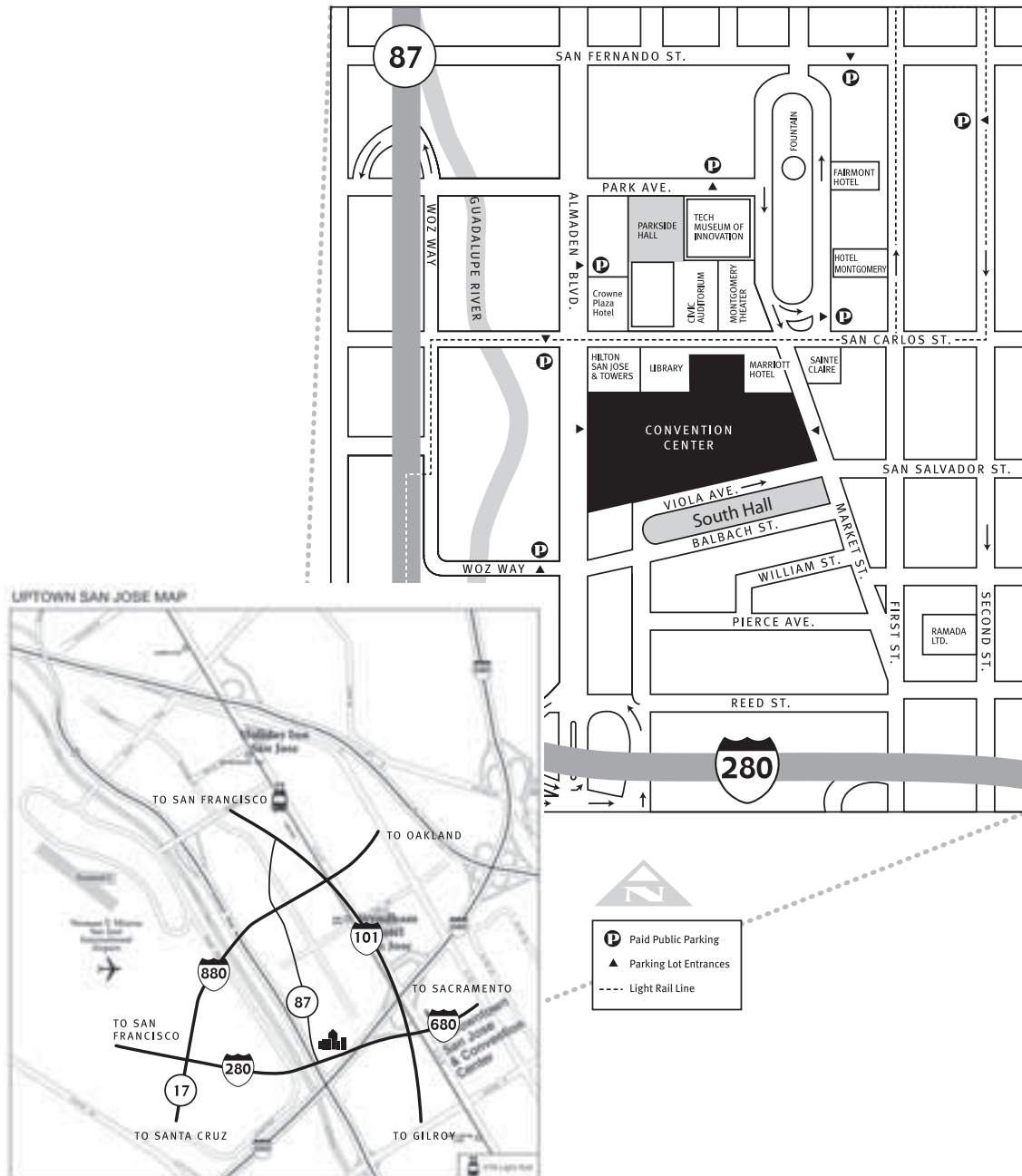
www.sales.hamamatsu.com

Toll-free: USA 1-800-524-0504 • Europe 00 800 800 800 88

General Information

Parking during Photonics West

LOCATION	RATES (SUBJECT TO CHANGE)	NOTES
<p>AT THE CONVENTION CENTER 150 W. San Carlos St.</p>	<p>Max \$18 per day. (\$1 for each 20 min to max \$18.)</p>	<p>There are approximately 650 spaces for the public to use.</p>
<p>ALTERNATE PARKING DOWNTOWN SAN JOSE - River Park Tower Garage, located on the corner of San Carlos and Woz Way, 333 W. San Carlos St.</p>	<p>\$1.25 per each 20 minutes, \$18 daily maximum. Rates and hours subject to change without notice.</p>	<p>Approx. 1,000 spaces available each day of the event. Hrs of operation: Mon-Fri - 6:30 am to 12:00 midnight, Sat - 8:00 am to 12 midnight Sun - 8:00 am - may close at 10pm if event over</p>





Synergies to drive your success

Leverage the unparalleled range of photonic competencies within Jenoptik for your innovative applications.

Whether in precision optical systems made of glass, crystal or plastic, or innovative technologies such as diode, disk and fiber lasers, Jenoptik know-how, technology and innovation are providing solutions for clients around the world in a diverse range of market sectors.

In applications for life science, semiconductor, automotive, solar and optical measurement industries, Jenoptik synergies can provide unique solutions and advantages.

Discover synergies at Jenoptik that can drive your success.

Visit us at Photonics West. Booth 1227

www.jenoptik.com/photonics



Product Demonstrations — Demo Area I — Hall 1

	Tuesday 27 January	Wednesday 28 January	Thursday 29 January
10:30 am	<p>Calcium Fluoride and Fused Silica for Versatile Optical Applications Daniel Hahn, SCHOTT North America, Inc.</p> <p>SCHOTT's Calcium Fluoride and Fused Silica are widely known as high performance optical materials, satisfying the highest requirements of laser and lithography applications. With this experience, SCHOTT is now able to offer material grades especially designed for cost-sensitive optical applications from UV to IR. "Lithosil - Standard Grade Opto" is SCHOTT's new fused silica combining excellent material properties, cost efficient qualification steps and shortest lead times.</p>	<p>Miniaturized Spectrometer for Online Analysis Thierry Berthou, SILIOS Technologies</p> <p>SILIOS presents a new series of miniaturized spectrometers that cover a wide spectral range from UV to Mid-IR. They are suitable for on line chemical analysis and process control applications.</p>	
11:30 am	<p>2nd Generation of Gaussian-to-Top-Hat Converters Largely Improve Laser Scribing Oliver Homburg, LIMO Lissotschenko Mikrooptik GmbH</p> <p>The 2nd generation of LIMO Gaussian-to-top-hat converters feature a strongly increased depth of field. The converters increase the quality, throughput as well as the process window of laser scribing in solar cell and semiconductor production.</p>	<p>Expanding Applications for Infrared Zoom Jonathan S. Kane, IRZoom.com / Computer Optics, Inc.</p> <p>Dr. Kane will discuss the cutting edge in infrared zoom and how to select lenses or integrated IR camera systems for military, surveillance and commercial applications. Hands-on demo followed by Q&A.</p>	
12:30 pm		<p>Integrated Camera Unit Alan Hamill, PHOTONIS</p> <p>ICU Intensified Camera Unit is a low light level, fully automatic, gated intensified CMOS camera. Technology, small size and low power consumption meet the demands of today's defense imaging systems.</p>	
1:30 pm	<p>How Micromotors Drive New Performance in Smaller Products Dan Viggiano III, New Scale Technologies</p> <p>Learn how SQUIGGLE micromotors are driving smaller, high-performance products. We explain the patented piezo technology and demo numerous applications, from endoscopes to phone cameras and more.</p>	<p>High Brightness Solutions for Industrial Applications Michael Kauf, Newport Corporation</p> <p>Newport will present laser solutions for industrial applications. This includes high power mini-bar diode lasers for fiber laser pumping and fiber lasers for cutting, welding and metal sintering.</p>	<p>JenLas® Disk IR 50 Thin-Disk Laser with Adjustable Laser Parameters Christon Manzella, JENOPTIK Laser, Optik, Systeme GmbH</p> <p>The JenLas® disk IR50 has the unique ability to deliver independent pulse length adjustment (250ns ... 2100ns), variable pulse repetition rate (8 ... 100 kHz) and output power.</p>

WaveMaster®

Fast and accurate Aspheric Lens Tester

R&D Line

Production Line

Universal Line

WaveMaster® provides real time wave front measurement and analysis of any spherical and highly aspherical optics. It features high spatial resolution and accuracy, can be simply set up in finite or infinity conjugates configuration and incorporates the state of the art wave front sensing technology.

Ultra fast for production testing, ultra accurate for lab and research, specialist in testing lenses for automotive sensors, mobile phone and digital cameras.



 **TRIOPTICS**

Product Demonstrations — Demo Area I — Hall 1

TIME	Tuesday 27 January	Wednesday 28 January	Thursday 29 January
2:30 pm	<p>Latest Results and New Products for Multi-Pixel Photon Counter Earl Hergert, Hamamatsu Corporation</p> <p>The MPPC (Si PM) is a solid state photon counting device, featuring high gain, high detection efficiency, and fast response. We will present an overview, new measurement results, and development plans.</p>	<p>UV Light - Demands on Optical Systems Thomas Thoeniss, LINOS Photonics, Inc.</p> <p>Special knowledge in design, technology and metrology is needed to develop optical systems for the UV range. New LINOS F-Theta-, inspection- and magnification-systems are shown and will be discussed.</p>	
3:30 pm	<p>LED Results. Half the Footprint. Greg McKee, Labsphere</p> <p>Learn how Labsphere with Photal-Otsuka designed an intuitive system that allows for larger forward flux emitting light engines measurement in half the footprint of a regular integrating sphere system.</p>	<p>New High Speed, High Resolution InGaAs-NIR Line Scan Camera Doug Malchow, Sensors Unlimited, Inc., part of Goodrich Corporation</p> <p>Sensors Unlimited's new SU-LDH High Speed Shortwave IR Digital Line Scan Camera features InGaAs SWIR imaging in high speed applications, including OCT, NIR Spectroscopy and Machine Vision.</p>	

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Optimize using the power of LightTools and SolidWorks

Link optical and mechanical design software to accelerate your illumination design process.

The **LightTools SolidWorks® Link Module** allows you to dynamically link SolidWorks mechanical models to *LightTools*, where you can assign optical properties, optimize, and directly update your SolidWorks designs.

Optical precision and rapid design evaluations

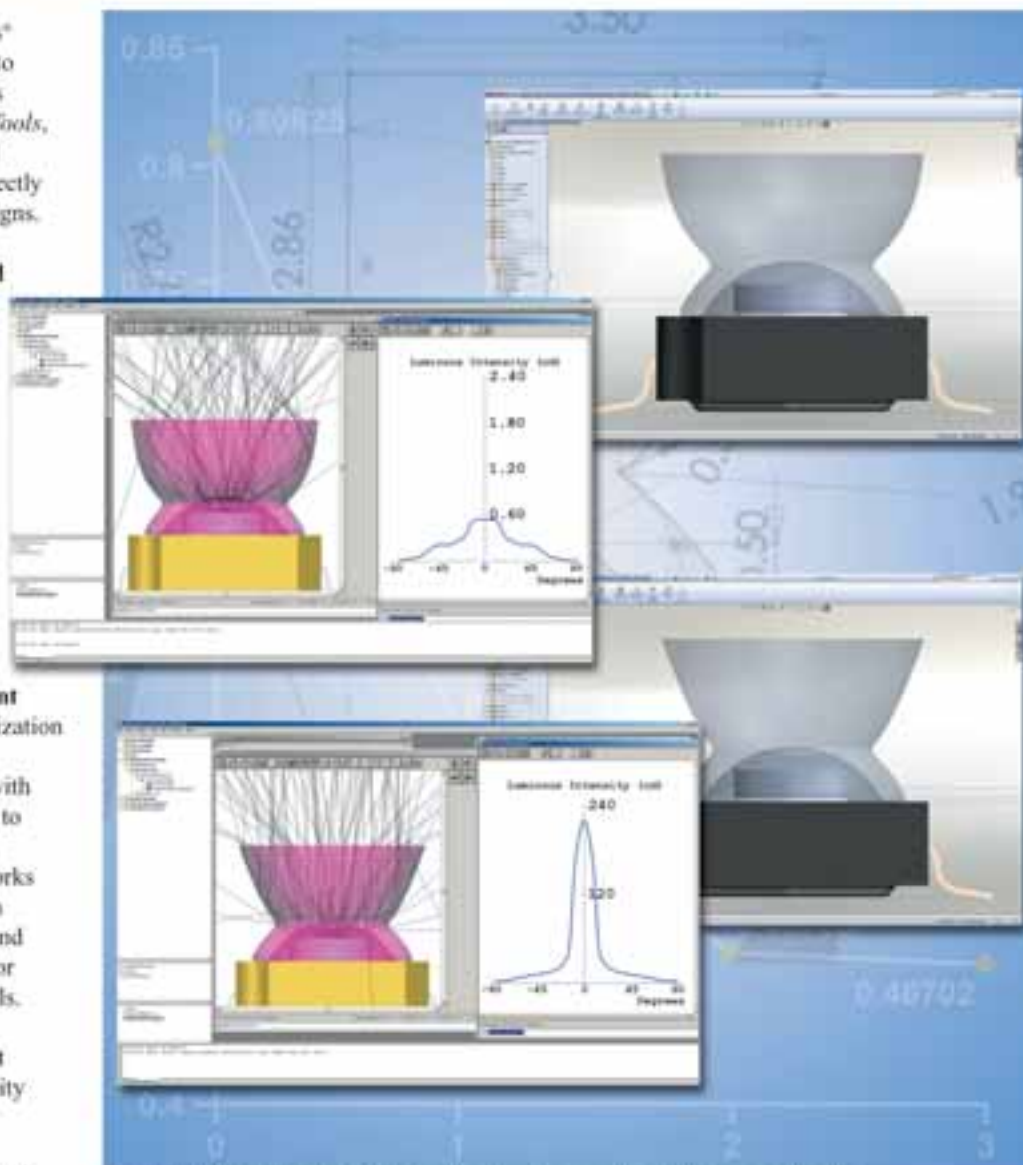
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Fax (626) 795-0184 E-mail: info@opticalres.com Web: www.opticalres.com

Offices: Tucson, AZ | Westborough, MA



Product Demonstrations — Demo Area II — Hall 3

TIME	Tuesday 27 January	Wednesday 28 January	Thursday 29 January
10:30 am	<p>FLIR Silver IR Camera and ExaminIR Software: Getting Good Data David Bursell, FLIR Systems, Inc.</p> <p>Learn how to get good data in a maze of materials with the FLIR Silver Infrared Camera and ExaminIR Software for inspection of PCBs and semiconductor substrates.</p>	<p>PicoSpark™: A Clean and Green Picosecond Machining Laser Ludovic Brasse, Teem Photonics</p> <p>PicoSpark™ opens a new chapter in the laser field, as it is the first multiWatt solid-state laser to achieve peak powers in the hundreds of kilowatts with pulse widths in the hundreds of picoseconds.</p>	
11:30 am	<p>Next Generation High-Performance Programmable Zoom Imaging William Gilman, Qioptiq Imaging Solutions</p> <p>New FETURA Advanced Zoom Imaging Lens features unique linear-rail design to offer unparalleled speed, reliability, control and economy for the next generation of extreme automated imaging applications.</p>	<p>Sophisticated Optical Components and Systems Rainer Schuhmann, Berliner Glas</p> <p>Design and manufacturing of high precision and state-of-the-art optical components (spherical, aspherical, cylindrical, plano) and integrated systems especially for medical or sensors application.</p>	
12:30 pm	<p>High Performance UV Filters Markus Bilger, JDSU</p> <p>UV optical filters – high transmission combined with improved durability, a step function in UV wavelength discrimination.</p>	<p>SL Sys Neo: Innovative Solution for Small Lenses Testing Jerome Ballesta, Imagine Optic</p> <p>Characterization of small optics and objectives allowing measurement of aberrations, BFL, EFL, chromatism, field curvature, distortion, vignetting, 3D MTF for all measured points in the field.</p>	
1:30 pm	<p>Continuum Introduces 5J Green Pump Laser Michael LaHa, Continuum</p> <p>Continuum announces the next generation of large frame Nd:YAG lasers for use in applications requiring high energy green light. The Genus™ system, based upon the Agilite platform, produces 5J of 532nm Q-switched output at 10Hz. Ideal for pumping Ti:Sapphire crystals, Genus™ meets the needs of a growing community of scientists requiring more energy from a standard platform. Specifications and technology behind the Genus™ system will be discussed.</p>	<p>The Optometronic 4000™ Photonics Workstation David Lewis, Nanonics Imaging Ltd.</p> <p>Characterize photonic devices from Si waveguides to plasmonic/photonic band gap structures with AFM/NSOM/Far-field for full lightwave characterization of nano/micro structures.</p>	<p>Structural and Chemical NanoCharacterization—The Interface Between Raman and AFM David Lewis, Nanonics Imaging Ltd.</p> <p>It will be shown that AFM and Raman form a synergistic combination that enhances both the AFM and Raman and allows a new modality such as Tip-Enhanced Raman Scattering.</p>
2:30 pm	<p>Solar Cell Dan Herrmann, RSoft Design Group</p> <p>Solar Cell</p>	<p>Introducing...New Cameras and Spectrographs from PI Ravi Guntupalli, Chris Draves, Manjul Shah, Princeton Instruments</p> <p>We'll demonstrate the latest in CCD, EMCCD and ICCD cameras as well as new developments in the Acton Series spectrographs. Come to learn about our new, powerful software release packed with features!</p>	
3:30 pm		<p>High Power Semiconductor Laser Modules Laurent Vaissie, QPC Lasers, Inc.</p> <p>QPC Lasers uses its BrightLase and Brightlock technologies in the visible, near infra-red, and eyesafe wavelengths.</p>	

OptoSigma is dedicated to providing you with high quality products, excellent service and a large selection from our inventory at competitive prices. Our complete line of thin film coatings, optical components, opto-mechanics, manual and motorized positioners offers you accommodating one-stop shopping.



In addition to the catalog offering, OptoSigma can supply custom designs and OEM quantities. Our design engineers will be pleased to advise and assist in the selection or design of the appropriate product.

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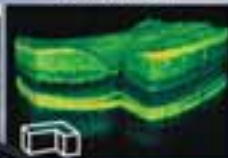
Product Demonstrations — Demo Area III — South Hall 1

TIME	Tuesday 27 January	Wednesday 28 January	Thursday 29 January
10:30 am	<p>Smart Future with Flexible Microbolometer Camera from XenICs Luc DeBrouckere, XenICs Agent for US and Canada</p> <p>XenICs' new "Gobi" uncooled microbolometer SMART camera features a 384 x 288 pixel resolution at a 25µm pixel pitch. The Gobi combines high-speed and high-sensitivity at an affordable price range.</p>	<p>Scanning Photon Microscope based on a 2D Microscanner Michael Scholles, Fraunhofer IPMS</p> <p>The Fraunhofer IPMS presents a "Scanning Photon Microscope". It uses a two-dimensional resonant microscanning mirror developed at the institute for the deflection of light.</p>	<p>Ideal Detector Characteristics for Iris Recognition Bruce True, Intevac Photonics, Inc.</p> <p>Intevac's MicroVista® NIR exclusive back-illuminated CMOS camera has all of the properties of an ideal detector for iris recognition: near-infrared sensitivity, 1.3 MP resolution, and fast frame rates.</p>
11:30 am	<p>A Highly Flexible and Innovative Adaptive Optics Technology Frederic Rooms, ALPAO</p> <p>We'll show the benefits and high-level performance of our AO systems & patented deformable mirror series (large strokes/high bandwidth) and show how to save time and money using the ALPAO AO toolkit.</p>	<p>Ultra Compact One-Piece HD Camera with True 1920 x 1080 res. Ian Tobi, Toshiba Imaging</p> <p>IK-HR1D is a one-piece ultra compact, lightweight camera with true 1920 x 1080 output pixels; 1/3" CMOS 2.1 Mega Pixel sensor; C-mount lens mount; on menu screen; DVI-I output & analog RGB; 60 fps.</p>	<p>Zaber: Installation is Easy as 1-2-3 Jesse Schuhlein, Zaber Technologies</p> <p>Jesse, Zaber's Product Manager, will demonstrate various aspects of Zaber's products with a particular focus on their ease of installation.</p>
12:30 pm	<p>A New Series of LUXBEAM® Light Engines for Industrial DLP® Applications Oyvind Taffjord, Visitech AS</p> <p>VISITECH is introducing a series of fully functional DLP® light engines, in order to lower the threshold of applying the Texas Instruments' DLP® technology for industrial and emerging applications.</p>	<p>Compact ECqcl Products for Mid-IR Detection and Illumination Eric Takeuchi, Daylight Solutions</p> <p>Miniaturized external-cavity quantum cascade lasers (ECqcl) are now a commercial reality. Daylight will present their most recent results and applications in molecular detection and illumination.</p>	
1:30 pm	<p>Measure Laser Pulse Energy Over 100,000 pps with New Mach 5 Don Dooley, Spectrum Detector, Inc.</p> <p>Demonstrate high speed performance of mach5 when measuring high rep rate, ultrafast lasers. Measure Q-switched DPSS YLF laser running at 100 kHz and demonstrate capabilities of mach 5 and Software.</p>	<p>Industry Oriented Femtosecond Laser and its Applications Tetsumi Sumiyoshi, Cyber Laser Inc.</p> <p>Cyber Laser Inc. introduces a highly reliable, industry oriented femtosecond laser platform "IFRIT". Process optimization for applications is also discussed such as drilling holes, grooving and creating periodic nano-structures.</p>	
2:30 pm	<p>Optical Manufacturing in SESO Denis Fappani, SESO</p> <p>Presentation of activities and products of SESO, a French company involved in design and manufacturing of customized optics (up to 2m)/ optomechanical assemblies for Astronomy, Space, Industry.</p>	<p>Laser MicroJet® for Precision Machining Applications Notker Kling, Synova</p> <p>The water jet-guided laser technology (LMJ) provides major benefits for micro-cutting, dicing, scribing, drilling and edge-grinding applications.</p>	
3:30 pm	<p>Ultra Stable, Ultra Narrow Linewidth, 'Virtual Ring' Fiber Lasers Yaakov Shevy, Orbits Lightwave, Inc.</p> <p>The virtual-ring slow light laser oscillator enables traveling wave in a compact, linear, all-fiber cavity. The SlowLight™ Laser technology leads to unprecedented low noise and frequency stability.</p>	<p>Measure Laser Pulse Energy Over 100,000 pps with New Mach 5 Don Dooley, Spectrum Detector, Inc.</p> <p>Demonstrate high speed performance of mach 5 when measuring high rep rate, ultrafast lasers. Measure Q-switched DPSS YLF laser running at 100 kHz and demonstrate capabilities of mach 5 and Software.</p>	

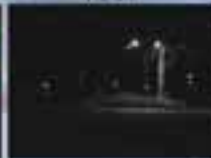
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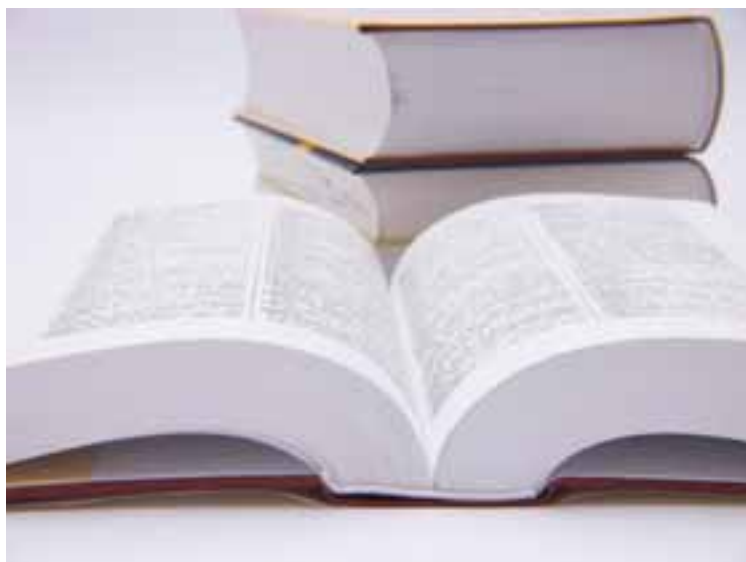
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Product Demonstrations — Demo Area III — South Hall 1

TIME	Tuesday 27 January	Wednesday 28 January	Thursday 29 January
4:30 pm	<p>LIRA5S Brian Elias, Cal Sensors, Inc.</p> <p>High speed thermography and thermal imaging applications can benefit from the Cal Sensors LIRA5S linear array which is capable of sensing 256 thermal points at wavelengths from 1μm to 5μm.</p>	<p>Digital Wavefront Sensors Igor Lyuboshenko, PhaseView</p> <p>Digital Wavefront Sensors provide the highest resolution and dynamic range in wavefront analysis on the marketplace as it will be live demonstrated with an optical setup.</p>	

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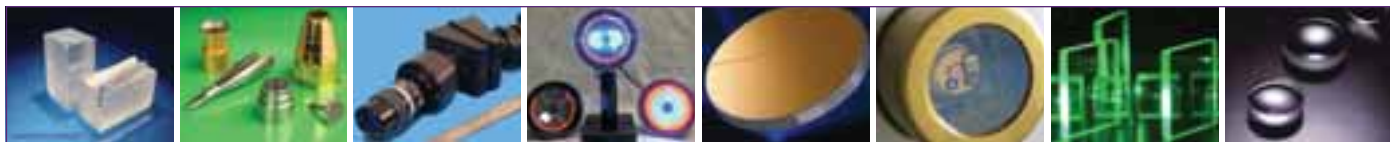
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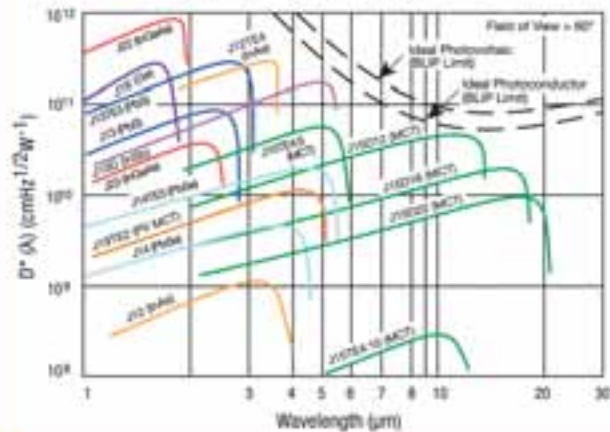
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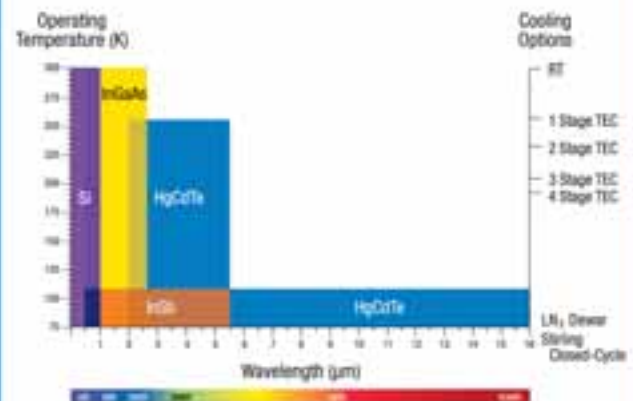
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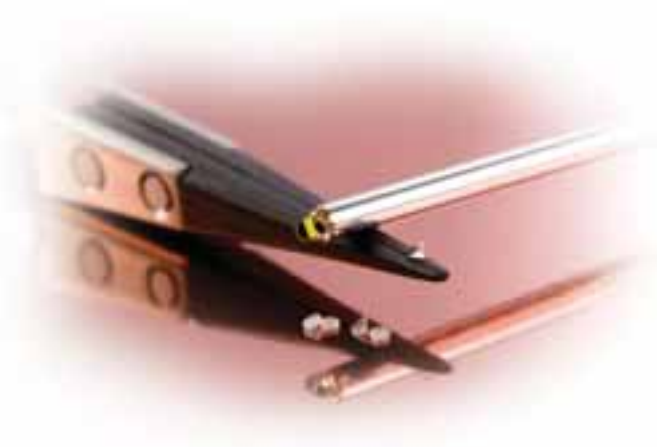
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Executive Panel

Silicon Photonics and Optical Interconnects

Convention Center, A6

Tuesday 27 January • 2:00 to 3:00 pm

Demand for smaller and cheaper optical interconnections inside computers is a main driver for silicon photonics, which will create a new market of miniaturized, low-cost photonic components that can leverage the scale of CMOS manufacturing. Learn what industry leaders have discovered at the frontier of silicon photonics and hear how this will revolutionize industries from computing and communication, to biomedicine and imaging.

Panel Moderator: Peter Hallett, SPIE

Panel Members:
Intel Corp. Mario Paniccia, Intel Fellow,
Director Photonics Technology Lab.

IBM Zürich Research Lab. Bert Jan Offrein, Manager Photonics

Hewlett-Packard Labs. Ray Beausoleil, Principal Scientist

Massachusetts Institute of Technology Eugene Fitzgerald, Professor of Materials Engineering

Sun Corp. Ashok Krishnamoorthy, Distinguished Engineer

Industry Perspectives

Hot Markets in Photonics: Solar

Convention Center, A6

Tuesday 27 January • 3:30 to 4:30 pm

Photovoltaics technology is enjoying high growth and substantial investment because of worldwide focus on the long-term importance of renewable energy. Delivering on the great promise of solar technology is one of the major opportunities of our time. But many technical challenges remain: efficiency, reliability, cost per watt, and commercialization, to name a few. Explore future directions and promising approaches in ongoing technological development.

Speakers:

Eric Wesoff, Greentech Media

Lawrence Gasman, NanoMarkets



Learn the direction of the industry and priorities for your business

Executive Panel

Executive Perspectives on the World of Optics and Photonics

Convention Center, A6

Wednesday 28 January • 2:00 to 3:00 pm

These top executives representing different aspects of the marketplace will share their insight regarding trends and opportunities in optics and photonics. With the extraordinary experience and resources these experienced executives in technology development, global sales, marketing and manufacturing, you are sure to learn new things about the direction of the industry and priorities for your business.

Panel Moderator: Tom Hausken, Director, Components Practice at Strategies Unlimited

Panel Members:

CVI Melles Griot

Hamamatsu

TRUMPF, Inc.

Edmund Optics Inc.

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Randy Heyler, Sr. Director, Strategic Marketing

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Executive Panel

Applications of High-Power Solid State Lasers

Convention Center, A6

Wednesday 28 January • 3:30 to 4:30 pm

Come join a lively discussion of the pros, cons, and the state of the art of high-power lasers, from disc to fiber to diode. Experts in these areas will discuss where they see new applications for high-power lasers emerging and what new markets will be enabled by the adaptable semiconductor laser.

Panel Moderator: Andrew Brown, SPIE

Panel Members:

IPG Photonics Corp.

TRUMPF, Inc.

Coherent

Spectra-Physics/Newport

ROFIN-SINAR Laser GmbH

Bill Shiner, Vice-President of Industrial Markets

Friedhelm Dorsch, Managing Director, Diode Lasers

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Over 400 companies in the field of optical technology are based in Bavaria, including many leading global companies as well as highly innovative small and medium-sized businesses covering all facets of optical technologies: sensors & metrology, components, materials, systems, laser & beam sources, imaging & lighting, manufacturing technology, biophotonics. There are over 40 service companies focusing specifically on the field of optical technology. Nationwide studies impressively document that an above-average number of firms from this sector is concentrated in Bavaria - according to statistics Bavaria hosts more optical companies than any other German state.

For detailed information on Bavaria's location-specific advantages for optical technologies please visit representatives of Bayern Photonics at Photonics West at the German Pavilion (Exhibit Hall # 3, Booth 1801) or contact us.

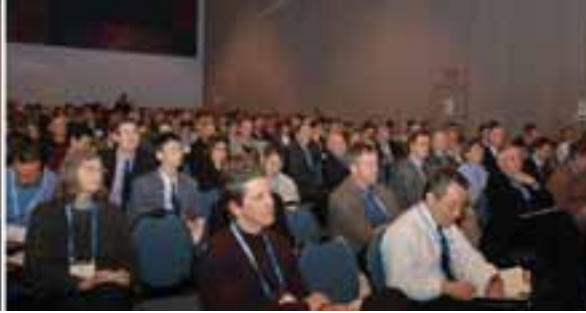
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Industry Workshops



Basic Optics

Basic Optics for Non-Optics Personnel

WS609 Course level: **Introductory**
CEU .20 \$125 / \$175 USD
Monday 8:30 to 11:00 am

This course will provide the technical manager, sales engineering, marketing staff, or other non-optics personnel with a basic understanding of the terms, specifications, and measurements used in optical technology to facilitate effective communication with optics professionals on a functional level.

Instructor: **Kevin Harding** has been active in the optics industry for over 30 years, and has taught machine vision and optical methods for over 25 years in over 70 workshops and tutorials.

Understanding Laser Beam Performance Specifications

WS847 Course level: **Introductory**
CEU .35 \$340 / \$395 USD
Sunday 1:30 to 5:30 pm

This workshop will provide attendees with a basic understanding of laser beam performance specifications.

Instructor: **Sydney Sukuta** started his teaching career at California State University Fresno in 1990 while he was a physics graduate student, and he has now taught at numerous academic institutions that include the University of Nevada Reno, the University of Phoenix's Reno and Online campuses.



Business, Patents + IP

Project Management for Rapid Product Development

WS936 Course level: **Intermediate**
CEU .35 \$340 / \$395 USD
Wednesday 1:30 to 5:30 pm

This half-day course is designed to meet the specific needs of engineering leads who must deliver results in challenging environments. You'll learn the most important aspects of project management for reducing cycle time by applying proven methods and tools to your product development process.

Instructor: **Gary Hinkle** is president and founder of Auxilium, Inc. His experience includes a broad variety of management and staff assignments with small, medium, and large companies involved in the development and manufacturing of high-tech products.

Complying with the ITAR: A Case Study

WS933 Course level: **Introductory**
CEU .35 \$340 / \$395 USD
Tuesday 8:30 am to 12:30 pm

This workshop will begin with a brief contextual overview of U.S. export controls. Real world situations and lessons learned will be shared. You will also learn about current enforcement trends and best practices for avoiding violations.

Instructor: **Kerry Scarlott** is a partner at Posternak Blankstein & Lund LLP, where he focuses his practice on business law and international trade.

The Nuts and Bolts of Patenting

NEW

WS934 Course level: **Introductory**
CEU .35 \$340 / \$395 USD
Monday 8:30 am to 12:30 pm

This course will provide attendees with key working skills crucial to the patenting process.

Instructor: **Nadya Reingand** is an Intellectual Property Counsel at CeLight, Inc. Dr. Reingand has over 10 years of experience in patent filing and prosecution; she has been a part of the USPTO team of frontiers that assists the PT Office with the electronic filing system.

Intellectual Property for High-Tech Business

WS412 Course level: **Introductory**
CEU .35 \$340 / \$395 USD
Tuesday 8:30 am to 12:30 pm

The main aim of this course is to provide the audience with an overview of how IP is used in high-tech business, with an emphasis on providing a realistic and grounded perspective on what IP is and how it is generated, developed, protected and leveraged by sophisticated high-tech businesses.

Instructor: **Joseph Gortych** is a registered patent attorney and is president Opticus IP Law, PLLC, an IP law firm based in Sarasota, Florida. He specializes in the strategic development, management and protection of intellectual property for optics, photonics and semiconductor technologies.

Creating a New Technology Venture

WS967 Course level: **Introductory**
CEU .65 \$565 / \$675 USD
Sunday 8:30 am to 5:30 pm

This course will explore the entrepreneurial process of creating a new technology venture.

Instructor: **Dennis Pape** has over twenty five years of experience with high technology companies from research scientist to manager to start-up founder to entrepreneur, corporate, and investor advisor.

Registration is required.
See SPIE Cashier to Register.

Professional Development Workshops

Hands-On Optics (HOO)- Making an Impact with Light: Terrific Telescopes Workshop

WS852 Course level: Introductory
CEU .30 \$10 / \$20 USD
Sunday 8:30 to 11:30 am

This workshop will train attendees on the use of Terrific Telescopes, a hands-on activity kit intended to engage and enrich the math/science learning experience for students in the middle grades.

Instructor: **Celeste Baine** runs the popular website EngineerInGedu.com where she promotes science and engineering learning for all ages.

Effective Technical Presentations

WS897 Course level: Introductory
CEU .35 \$125 / \$175 USD
Monday 8:30 am to 12:30 pm

This course proposes a five-step methodology that will take you from scratch to an effective technical presentation.

Instructor: **Jean-luc Doumont** runs lectures, workshops, and training programs in oral, written, and graphical communication for engineers, scientists, and managers worldwide. He is an engineer from the University of Louvain and a doctor in applied physics from Stanford University. This course is based on his popular lecture on oral presentations at over 15 top-ranked engineering schools (MIT, Stanford U, UC Berkeley, Caltech, Harvard, etc.).

Effective Scientific Papers

WS908 Course level: Introductory
CEU .35 \$125 / \$175 USD
Monday 1:30 to 5:30 pm

Strong writing skills are a key to success for researchers. This course proposes a methodology that will take you from scratch to an effective scientific or technical document—a question of structure, not style.

Instructor: **Jean-luc Doumont** runs lectures, workshops, and training programs in oral, written, and graphical communication for engineers, scientists, and managers worldwide.

Technology Roadmapping

WS941 Course level: Introductory
CEU 0.35 \$100 / \$150 USD
Tuesday 8:30 am to 12:30 pm

This course provides attendees with a methodology to generate a Product Technology Roadmap. These high level-planning tools support technology management in a rapid development environment. Such maps are effective communication tools as they allow the user to visualise the evolution of markets, products and technologies – and the linkages between them.

Instructor: **John McAleese** is a freelance consultant who has delivered this type of training to various international audiences in countries such as England, the USA and Russia; to enterprises large and small.



Essential Skills for Engineering Project Leaders

WS846 Course level: Introductory
CEU .35 \$340 / \$395 USD
Wednesday 8:30 am to 12:30 pm

This workshop teaches skills needed to lead technical projects, drive innovation, and influence others.

Instructor: **Gary Hinkle** is President and founder of Auxilium, Inc. His experience includes a broad variety of management and staff assignments with small, medium, and large companies involved in the development and manufacturing of high-tech products.

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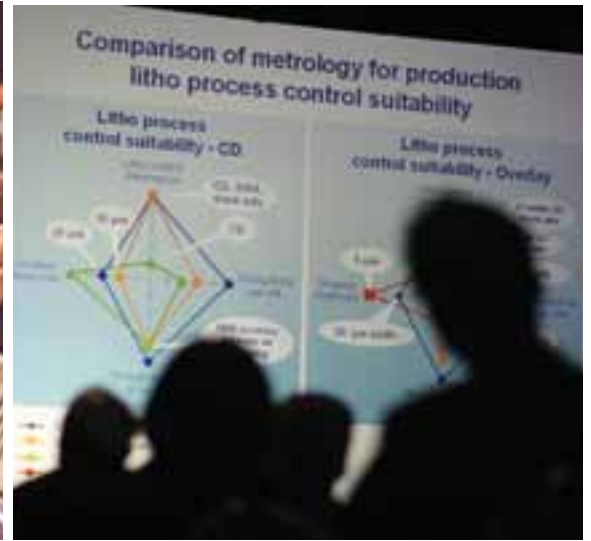
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Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
24 January	25 January	26 January	27 January	28 January	29 January

Biomedical Spectroscopy, Microscopy, and Imaging

SC819 Multiphoton Microscopy (MM) - Basics, Technology Development, and Applications (Periasamy, So) 8:30 am to 5:30 pm, \$565 / \$675	SC868 Optical Design for Biomedical Imaging (Liang) 8:30 am to 12:30 pm, \$340 / \$395		SC865 Microscope Design (Seward) 8:30 am to 12:30 pm, \$340 / \$395	SC823 Diagnostic Endoscopy (Zeng) 8:30 am to 12:30 pm, \$340 / \$395	
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Clinical Technologies and Systems

SC312 **Principles and Applications of Optical Coherence Tomography** (Fujimoto) 1:30 to 5:30 pm, \$340 / \$395

Registration is required.
See SPIE Cashier to Register.

Devices/Applications/Reliability

SC386 **Advanced Thermal Management Materials for Optoelectronic and MEMS/MOEMS Packaging** (Zweben) 8:30 am to 5:30 pm, \$565 / \$675

Laser Communication and Propagation

SC188 **Laser Beam Propagation for Applications in Laser Communications, Laser Radar, and Active Imaging** (Phillips, Andrews) 8:30 am to 5:30 pm, \$680 / \$790

Laser Micro-/Nanoengineering and Applications

SC743 **Micromachining with Femtosecond Lasers** (Nolte, Schaffer) 1:30 to 5:30 pm, \$340 / \$395

SC869 **Process Fundamentals of Industrial Laser Welding** (Havrilla) 8:30 am to 5:30 pm, \$565 / \$675

SC689 **Introduction to microMachining Using Lasers** (Schaeffer) 1:30 to 5:30 pm, \$340 / \$395

SC386 **Advanced Thermal Management Materials for Optoelectronic and MEMS/MOEMS Packaging** (Zweben) 8:30 am to 5:30 pm, \$565 / \$675

Legend for Education Products:

Price = SPIE Member / Non-Member

SC000 = Course Number

WS000 = Workshop Number

Daily Course Schedule

Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
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Laser Source Engineering					
SC752 Solid State Laser Technology (Hodgson) 8:30 am to 5:30 pm, \$680 / \$785	SC861 The Basics of Physics and Engineering of Lasers (Kalisky) 8:30 am to 12:30 pm, \$340 / \$395		SC931 Applied Nonlinear Frequency Conversion (Paschotta) 8:30 am to 5:30 pm, \$565 / \$675	SC860 Resonator Design for Solid State Lasers (Paschotta) 8:30 am to 5:30 pm, \$565 / \$675	
	SC748 High-Power Fiber Sources (Nilsson) 1:30 to 5:30 pm, \$340 / \$395		SC869 Process Fundamentals of Industrial Laser Welding (Havrilla) 8:30 am to 5:30 pm, \$565 / \$675	SC744 Ultrafast Fiber Lasers (Fermann) 1:30 to 5:30 pm, \$340 / \$395	
	SC746 Introduction to Ultrafast Technology (Trebino) 1:30 to 5:30 pm, \$340 / \$395		SC386 Advanced Thermal Management Materials for Optoelectronic and MEMS/MOEMS Packaging (Zweben) 8:30 am to 5:30 pm, \$565 / \$675		
	SC818 Laser Beam Quality (Paschotta) 1:30 to 5:30 pm, \$340 / \$395				
Micro/Nanofabrication					
		SC743 Micromachining with Femtosecond Lasers (Nolte, Schaffer) 1:30 to 5:30 pm, \$340 / \$395	SC386 Advanced Thermal Management Materials for Optoelectronic and MEMS/MOEMS Packaging (Zweben) 8:30 am to 5:30 pm, \$565 / \$675		SC532 Micro- and Nanofluidics - Technology and Applications (Gaertner) 8:30 am to 12:30 pm, \$340 / \$395
			SC689 Introduction to MicroMachining Using Lasers (Schaeffer) 1:30 to 5:30 pm, \$340 / \$395		
Nano/Biophotonics					
	SC309 Fluorescent Markers: Usage and Optical System Optimization (Levi) 8:30 am to 12:30 pm, \$340 / \$395	SC463 Biophotonics (Prasad) 8:30 am to 5:30 pm, \$635 / \$745		SC790 Liquid Crystals: From Fundamentals to Applications (Smalyukh) 8:30 am to 5:30 pm, \$565 / \$675	SC727 Nanoplasmonics (Stockman) 8:30 am to 5:30 pm, \$565 / \$675
	SC461 Bio-Optical Detection Systems (Levi) 1:30 to 5:30 pm, \$340 / \$395	SC742 Nano-Photonics: Physics and Techniques (Scherer) 8:30 am to 12:30 pm, \$340 / \$395			
		SC608 Photonic Crystals: A Crash Course, from Bandgaps to Fibers (Johnson) 1:30 to 5:30 pm, \$385 / \$440			
Nanotechnologies in Photonics					

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Nonlinear Optics

SC047 Introduction to Nonlinear Optics (Fisher) 8:30 am to 5:30 pm, \$565 / \$675	SC931 Applied Nonlinear Frequency Conversion (Paschotta) 8:30 am to 5:30 pm, \$565 / \$675
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Optics and Optical Engineering

SC935 Introduction to Lens Design (Bentley) 8:30 am to 12:30 pm, \$340 / \$395	SC156 Basic Optics for Engineers (Ducharme) 8:30 am to 5:30 pm, \$600 / \$710	SC003 Practical Optical System Design- EXPANDED 2-Day Format (Fischer) 8:30 am to 5:30 pm, \$1125 / \$1380	SC912 Intermediate Lens Design (Bentley) 8:30 am to 5:30 pm, \$650 / \$760	SC690b Optical System Design: Layout Principles and Practice (Greivenkamp) 8:30 am to 5:30 pm, \$670 / \$780
SC690a Optical System Design: Layout Principles and Practice (Greivenkamp) 8:30 am to 5:30 pm, \$670 / \$780	SC720 Cost-Conscious Tolerancing of Optical Systems (Youngworth) 8:30 am to 12:30 pm, \$340 / \$395	SC206 Polarized Light: A Practical Hands-on Introduction (Fisher) 8:30 am to 5:30 pm, \$565 / \$675	SC552 Aspheric Optics: Design, Fabrication, and Test (Fischer) 1:30 to 5:30 pm, \$340 / \$395	
SC212 Modern Optical Testing (Wyant) 1:30 to 5:30 pm, \$370 / \$420	SC702 Optics and Optical Quality of the Human Eye (Roorda) 8:30 am to 12:30 pm, \$340 / \$395	SC011 Design of Efficient Illumination Systems (Cassarly) 1:30 to 5:30 pm, \$340 / \$395		
	SC003 Practical Optical System Design - EXPANDED 2-Day Format (Fischer) 8:30 am to 5:30 pm, \$1125 / \$1380			
	SC017 Principles of Fourier Optics and Diffraction (Gaskill) 8:30 am to 5:30 pm, \$670 / \$780			
	SC321 Thin Film Optical Coatings (Macleod) 8:30 am to 5:30 pm, \$565 / \$675			
	SC932 Ophthalmic Adaptive Optics (Miller) 1:30 to 5:30 pm, \$340 / \$395			
	SC384 The Design of Plastic Optical Systems (Schaub) 1:30 to 5:30 pm, \$340 / \$395			



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Daily Course Schedule

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Optoelectronic Materials and Devices



SC864 **Introduction to Optical Simulation Using the Finite-Difference Frequency-Domain Method** (*Rumpf*) 1:30 to 5:30 pm, \$340 / \$395

SC386 **Advanced Thermal Management Materials for Optoelectronic and MEMS/MOEMS Packaging** (*Zweben*) 8:30 am to 5:30 pm, \$565 / \$675

SC790 **Liquid Crystals: From Fundamentals to Applications** (*Smalyukh*) 8:30 am to 5:30 pm, \$565 / \$675

SC547 **Terahertz Wave Technology and Applications** (*Zhang*) 8:30 am to 12:30 pm, \$340 / \$395

SC822 **Principles of GaN-based Devices** (*Piprek*) 1:30 to 5:30 pm, \$450 / \$500

Optomechanics

SC013 **Precision Mounting of Optical Components** (*Yoder*), 8:30 am to 5:30 pm, \$650 / \$760

SC015 **Structural Adhesives for Optical Bonding** (*Daly*) 8:30 am to 12:30 pm, \$340 / \$395

SC010 **Introduction to Optical Alignment Techniques** (*Ruda*) 8:30 am to 5:30 pm, \$955 / \$1110

SC781 **Optomechanical Analysis** (*Hatheway*) 8:30 am to 5:30 pm, \$565 / \$675

Photonic Integration

SC817 **Silicon Photonics** (*Michel, Saini*) 1:30 to 5:30 pm, \$340 / \$395

Photonic Therapeutics and Diagnostics

SC702 **Optics and Optical Quality of the Human Eye** (*Roorda*) 8:30 am to 12:30 pm, \$340 / \$395

SC932 **Ophthalmic Adaptive Optics** (*Miller*) 1:30 to 5:30 pm, \$340 / \$395

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Semiconductor Lasers and LEDs

SC448 Diode Lasers: How to Select the Best Laser for Your Application (<i>Linden</i>) 1:30 to 5:30 pm, \$340 / \$395	SC657 Accurate Measurement of LED Optical Properties (<i>Tirpak</i>) 8:30 am to 12:30 pm, \$340 / \$395	SC869 Process Fundamentals of Industrial Laser Welding (<i>Havrilla</i>) 8:30 am to 5:30 pm, \$565 / \$675	SC877 Introduction to High Power Diode Laser Technology (<i>Roh</i>) 8:30 am to 12:30 pm, \$340 / \$395
	SC052 Light-Emitting Diodes (<i>Schubert</i>) 1:30 to 5:30 pm, \$400 / \$460	SC011 Design of Efficient Illumination Systems (<i>Cassarly</i>) 1:30 to 5:30 pm, \$340 / \$395	SC822 Principles of GaN-based Devices (<i>Piprek</i>) 8:30 am to 12:30 pm, \$450 / \$500
		SC053 Testing and Reliability of Semiconductor Lasers (<i>Lear</i>) 1:30 to 5:30 pm, \$340 / \$395	

Standards

SC700 Understanding Scratch and Dig Specifications (<i>Aikens</i>) 1:30 to 5:30 pm, \$390 / \$445	SC863 Understanding ISO-10110: The Optics Drawing Standard (<i>Aikens</i>) 8:30 am to 5:30 pm, \$740 / \$850
	SC862 Updated US and International Laser Product Certification Requirements (<i>Stoev</i>) 8:30 am to 5:30 pm, \$565 / \$675

Tissue Optics, Laser-Tissue Interaction, and Tissue Engineering

SC768 Optoacoustic Systems for Medical Imaging: From Principles to Clinical Applications (<i>Oraevsky</i>) 1:30 to 5:30 pm, \$340 / \$395	SC029 Tissue Optics (<i>Jacques</i>) 1:30 to 5:30 pm, \$340 / \$395	SC824 Diffuse Light Transport in Tissue and Diffuse Tomography Reconstruction using MATLAB (<i>Dehghani, Pogue</i>) 8:30 am to 5:30 pm, \$565 / \$675
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Daily Course Schedule

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Displays and Holography



SC821 Holographic Techniques for Advanced Photonic Systems (Kostuk) 8:30 am to 12:30 pm, \$340 / \$395	SC790 Liquid Crystals: From Fundamentals to Applications (Smalyukh) 8:30 am to 5:30 pm, \$565 / \$675
SC386 Advanced Thermal Management Materials for Optoelectronic and MEMS/MOEMS Packaging (Zweben) 8:30 am to 5:30 pm, \$565 / \$675	

Industry Workshops

Basic Optics

WS847 Understanding Laser Beam Performance Specifications (Sukuta) 1:30 to 5:30 pm, \$340 / \$395	WS609 Basic Optics for Non-Optics Personnel (Harding) 8:30 to 11:00 am, \$125 / \$175
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Business, Patents + IP

WS867 Creating a New Technology Venture (Pape) 8:30 am to 5:30 pm, \$565 / \$675	WS934 The Nuts and Bolts of Patenting (Reingand) 8:30 am to 12:30 pm, \$340 / \$395	WS933 Complying with the ITAR: A Case Study (Scarlott) 8:30 am to 12:30 pm, \$340 / \$395	WS936 Project Management for Rapid Product Development (Hinkle) 1:30 to 5:30 pm, \$340 / \$395
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Registration is required.
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WS412 Intellectual Property for High-Tech Business (Gortych) 8:30 am to 12:30 pm, \$340 / \$395
WS941 Technology Roadmapping (McAleese) 8:30 am to 12:30 pm, \$100 / \$150

Professional Development Workshops

WS852 Hands-On Optics (HOO) - Making an Impact with Light: Terrific Telescopes Workshop (Baine) 8:30 to 11:30 am, \$10 / \$20	WS897 Effective Technical Presentations (Dumont) 8:30 am to 12:30 pm, \$125 / \$175	WS846 Essential Skills for Engineering Project Leaders (Hinkle) 8:30 am to 12:30 pm, \$340 / \$395
	WS908 Effective Scientific Papers (Dumont) 1:30 to 5:30 pm, \$125 / \$175	



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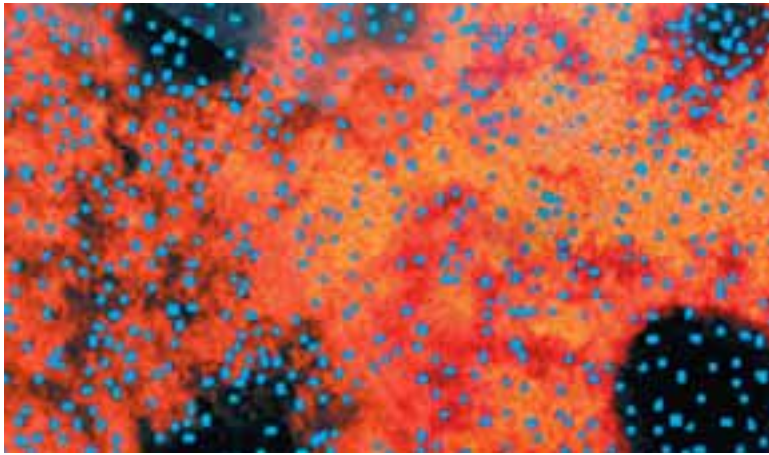
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How to use this directory

SPIE BiOS exhibitors are listed in alphabetical order with details about products or services each is exhibiting. Companies are additionally cross-indexed by technology areas in the Product Index on pages 68–70.

Booth numbers are provided in the Exhibitor Directory, and may be cross-referenced with the map on page 44. The address of each exhibitor is also listed, making this Exhibition Guide an excellent reference tool to take back to your office and share with your colleagues.

Exhibitor List as of 2 December 2008

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Coffee/Dessert Break



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Coffee Break



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Booth #8433
www.tbwp.com



Booth #8120
www.innolume.com



Booth #8433
www.toptica-usa.com

2009 Exhibitor Listing

BiOS Exhibition Hours

*San Jose Convention Center,
 Exhibition Hall 1*

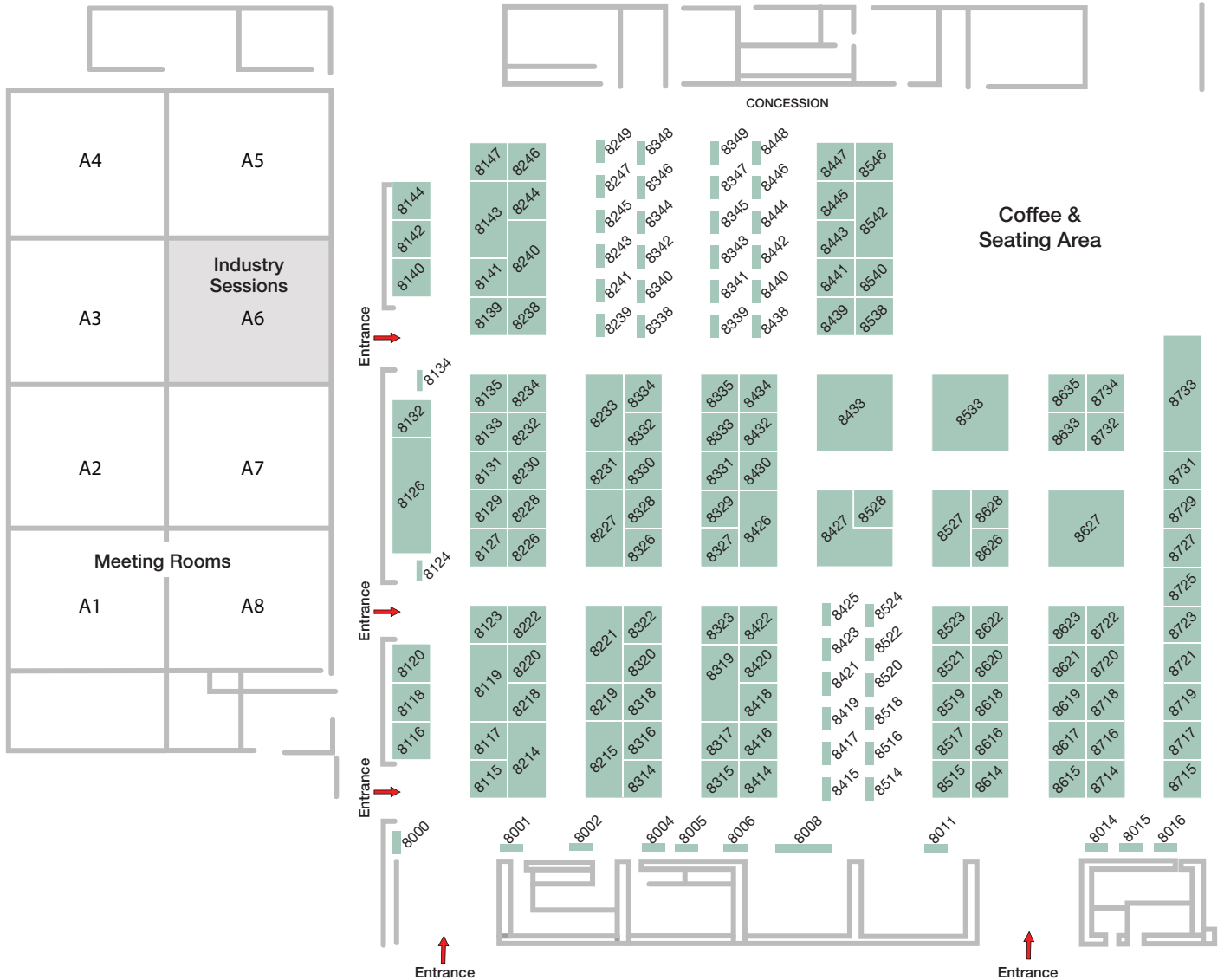
Saturday 24 January 1:00 to 5:00 pm

Sunday 25 January 10:00 am to 4:00 pm

PLEASE NOTE:

The SPIE Photonics West Exhibitor Listing begins on page 74.

EXHIBIT HALL 1



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sales@advr-inc.com; www.adv-r-inc.com

New Product: Paired photon sources.

ADV-R develops, fabricates, and sells periodically poled and other engineered NLO structures for frequency conversion and custom leading edge applications. Fiber-in, fiber-out modules for entangled photon pairs and heralded single photons. 488 nm and 532 nm 1-10mW diode-based lasers. Contact: Bob Tamosaitis, Sales Manager, Bob@advr-inc.com; Elizabeth Noonan, Research Manager, noonan@advr-inc.com.

Alphion Corp.

#8623



196 Princeton Hightstown Rd Bldg 1A,
Princeton Junction, NJ, 08550
609/936-9001; fax 609/936-9002
sales@alphion.com; www.alphion.com

American Society for Laser Medicine & Surgery, Inc.

#8342

2100 Stewart Ave Ste 240, Wausau, WI, 54401
715/845-9283; fax 715/848-2493
www.aslms.org

The American Society for Laser Medicine and Surgery is the world's largest scientific organization dedicated to promoting research, education and high standards of clinical care in the field of medical laser applications. It provides a forum for the exchange of scientific information and participates in communicating the latest developments in laser medicine and surgery to clinicians, research investigators, government and regulatory agencies, and the public. Contact: Jane Frohm, Industry Relations Specialist, jane@aslms.org.

Amplitude Laser

#8440



One Broadway 14th Fl, Cambridge, MA, 02142
617/401-2195; fax 617/758-4101
www.amplitude-laser.com

New Product: tPulse II: Imaging diode-pumped ultrafast air-cooled oscillator with fiber coupling option.

Amplitude Laser is the US based subsidiary for Amplitude Systems, pioneer in Ytterbium laser technology, manufacturing advanced diode-pumped ultrafast lasers for scientific and industrial applications. Products include high energy oscillators (t-Pulse), amplifiers (s-Pulse) and fiber amplifiers (Tangerine). Contact: Robert Braunschweig, US Sales Manager, rbraunschweig@amplitude-laser.com; Eric Mottay, President and CEO, emottay@amplitude-sytemes.com.

Andor Technology Plc

#8414



425 Sullivan Ave Ste 3, South Windsor, CT, 06074
860/290-9211; fax 860/290-9566
l.fiore@andor.com; www.andor.com

Andor enables its customers to break new ground by performing light measurements previously considered impossible. With a portfolio spanning high-performance scientific digital CCD, EMCCD and ICCD cameras, spectrographs, and microscopy systems, Andor is a leader in scientific imaging and spectroscopy solutions. Customers include the world's leading academic and research establishments in life and physical sciences. More information about Andor Technology PLC (LSE: AND) is available at www.andor.com. Contact: Gene Marino, Marketing, g.marino@andor.com; Jennifer Drezek, Sales Service Manager, j.drezek@andor.com.

Andover Corp.

#8519



4 Commercial Dr, Salem, NH, 03079-2800
603/893-6888; fax 603/893-6508
info@andovercorp.com; www.andovercorp.com

New Product: Sputtered coatings.

Andover manufactures high-quality optical filters and coatings in the UV to Mid IR range. We specialize in narrowband, image-quality and space-qualified filters. We have over 1000 standard items in stock and can provide custom parts in as little as one week. We are ITAR and ISO 9001:2000 registered. Contact: Phil Clark, Technical Sales, pclark@andovercorp.com; Rob Pursel, Senior Thin Film Engineer, rpursel@andovercorp.com.

APPLIED IMAGE Group

#8322



1653 E Main St, Rochester, NY, 14609
585/482-0300; fax 585/288-5989
imaging@appliedimage.com; www.appliedimage.com

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- Gold Coated
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www.fiberguide.com



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Asahi Spectra USA Inc.

#8117



23505 Crenshaw Blvd Ste 229, Torrance, CA, 90505
310/530-5855; fax 310/325-8974
info@asahi-spectra.com; www.asahi-spectra.com

New Product: UV Filters and Long-Life, High Power Light Source.

A leading designer and manufacturer of precise optical filters and analytical instruments, we serve a wide range of markets, including medical diagnostics, environmental monitoring, imaging, semiconductor and aerospace. Our newest innovations include high-performance filters for UV applications and a long life light source. We welcome your OEM inquiries and custom engineering questions. Contact: Takeshi Fujii, Vice President, tfujii@asahi-spectra.com.

Avo Photonics, Inc.

#8323



700 Business Center Dr Ste 125, Horsham, PA, 19044
215/441-0107; fax 215/441-9219
sales@avophotonics.com; www.avophotonics.com

Avo Photonics provides Custom Design and advanced Contract Manufacturing services for photonic customers in the medical, military, aerospace, communications and industrial markets. Avo's Design and Manufacturing Services provide customers with support throughout all stages of the product lifecycle - Concept thru Prototype and into Production. Avo's personnel and equipment are an extension of its customer's business, providing transparent services at the volumes needed. Contact: Neal Stoker, Vice President of Sales and Marketing, nstoker@avophotonics.com; Joseph Dallas, President/Chief Operating Officer, jdallas@avophotonics.com.

Axcel Photonics Inc.

#8331

45 Bartlett St, Marlborough, MA, 01752
508/481-9200; fax 508/481-9261
sales@axcelphotonics.com; www.axcelphotonics.com

New Product: 808nm HHL fiber pigtail Modules up to 10W; 915nm 12W 90um Thick C-mount or Chip on Submount.

Manufactures single-mode and multi-mode high power diode lasers. Standard and custom products from 780nm to 1080nm with up to 30W output from a single chip. Available as chips, sub-mounts and modules with fiber or window output. Applications include DPSS, medical, printing, spectroscopy, telecom, etc. Contact: Tom Yang, Director of Sales.

Axsun Technologies

#8228

1 Fortune Dr, Billerica, MA, 01821
978/262-0049; fax 978/262-0035
kmooney@axsun.com; www.axsun.com

Axsun Technologies Inc. manufactures tunable engine modules for a variety of Optical Coherence Tomography (OCT) applications. Axsun's 1310 nm Swept Source OCT Engine, based on a patented MEMS tunable optical filter, enables real time, high resolution OCT imaging at 50KHz and beyond in a compact, rugged OEM form-factor.

B&W Tek, Inc.

#8540



19 Shea Way, Newark, DE, 19713
302/368-7824; fax 302/368-7830
info@bwtek.com; www.bwtek.com

New Product - BWID™ Material Identification Software for its Portable Raman Spectrometers!

B&W Tek, Inc. provides high value solutions for photonics. A versatile product portfolio comprises an Off-The-Shelf selection of lasers, spectrometers, and sampling accessories for the deep UV to the longwave NIR. B&W Tek OED and OEM services provide innovative solutions for the design, development, and quality manufacturing to the most demanding requirements for analytical, industrial, medical, biophotonic, and diagnostic applications. ISO 9001 and ISO 13485 certified.

Barr Associates Inc.

#8234



2 Lyberty Way, Westford, MA, 01886
978/692-7513; fax 978/692-7443
barr@barrassociates.com; www.barrassociates.com

Barr Associates, Inc. is a leading manufacturer and supplier of optical interference filters/coatings (UV through Far-IR) in large or small volume for commercial, defense, space/aerospace and scientific applications. Barr offers precision coating solutions supporting all of the traditional filter types, plus Rugate Notch, Multi-Band, Ultra-narrow-Bandpass and Linear Variable, High Reflectors, Patterned-coatings, ITO, Metal (Solderable), Filter-Arrays and filters for Image-quality applications. Contact: George Minott, Business Development, Commercial Applications, gminott@barrassociates.com; Ali Smajkiewicz, President, ali@barrassociates.com.

BaySpec, Inc.

#8332



101 Hammond Ave, Fremont, CA, 94539
510/661-2008; fax 510/661-2009
www.bayspec.com

New Product: BaySpec's Super Gamut™ series NIR Long-wavelength Raman spectral engines, 1064nm.

BaySpec, Inc., founded in 1999 and located in Silicon Valley (Fremont, California), is an OEM fiber-optics company. The company designs, manufactures and markets advanced fiber-optic components, modules and subsystems for the optical telecom, test and measurement, fiber sensing, NIR spectroscopy and biomedical industries. Contact: Sales Manager, sales@bayspec.com.

Becker and Hickl GmbH

#8733

Nahmitzer Damm 30, Berlin, Germany, D-12277
49 30 787 5632; fax 49 30 787 5734
info@becker-hickl.de; www.becker-hickl.de

New Product: "Confocal Fluorescence Lifetime Imaging Microscope by adding DCS-120 to almost any microscope".

Time correlated Single Photon Counting (TCSPC) electronic modules providing PC based measurement solutions. Applications include Fluorescence Lifetime Imaging Microscopy (FLIM), Fluorescence Resonance Energy Transfer (FRET) and Fluorescence Correlation Spectroscopy (FCS). Single photon counting detectors (MCP's, PMT's), Pulsed Diode Lasers, multichannel detector heads, routing devices for multichannel measurements, preamps, gated photon counters and multiscalers. Contact: John Devaney, Instrument Sales, jjd@boselec.com.

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sales@bigc.com; www.BigC.com

#8734

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Sparks, MD, 21152-9201
410/472-7070; fax 410/472-7960
office@brimrose.com; www.brimrose.com

#8245

BioOptics World/Medical Laser Report #8518

98 Spit Brook Rd, Nashua, NH, 03062
603/891-0123
www.bioopticsworld.com
BioOptics World is an e-magazine, e-newsletter and website that tracks technology, application and business trends related to the use of optical technologies and instrumentation in the life sciences.

Bioptigen Inc.

104 T W Alexander Dr Bldg 2, Durham, NC, 27709
919/314-5500; fax 919/314-5501
sdoct@bioptigen.com; www.bioptigen.com
Bioptigen's pioneering in vivo optical imaging technology allows researchers to see tissue microstructure with unprecedented detail and clarity across a wide range of subject applications, including human, animal and inanimate. This sophisticated OCT system enables real-time non-invasive imaging of microstructure at an unmatched level of precision and depth. These advances make it possible for researchers to open up new avenues of exploration and development.


#8334

Bookham, Inc.

Santa Rosa Office, 3640 Westwind Blvd, Santa Rosa, CA, 95403
707/636-1100; fax 707/636-1199
samantha.turner@bookham.com; www.bookham.com
Precision optical filters for OEM applications.

#8522

Boston Electronics Corp.

 91 Boylston St, Brookline, MA, 02445
800/347-5445; fax 617/731-0935
boselec@boselec.com; www.boselec.com
Products for optical signal detection and signal processing - Time Correlated Single Photon Counting Electronics. Fluorescence Lifetime and Steady State Spectrometers, Quantum Cascade Lasers, Lock in amplifiers and optical choppers. UV and IR detectors. APD modules. Laser safety shutters. IR sources. Laser radar (LIDAR) receiver electronics. Contact: Fred Perry, President, fsp@boselec.com.

#8733

Breault Research Organization


 6400 E Grant Rd Ste 350, Tucson, AZ, 85715
800/882-5085; fax 520/721-9630
info@breault.com; www.breault.com

#8422

New Product: The BIO Toolkit™ for ASAP® Optical Software is used to create tissue phantoms and human eye models.

BRO is an optical engineering firm of global reach and reputation. BRO's optical software products, including the industry-standard ASAP®, help engineers turn creative visions into working prototypes, and the company's own engineers work on beyond-state-of-the-art projects for Fortune 500 companies, research institutions, and top government labs. In over three decades of innovation, BRO has contributed to the success of engineering projects for thousands of clients. Contact: Michelle White, Software Sales Administrator, mwhite@breault.com; Michael Frate, Business Development Manager (Engineering), mfrate@breault.com.


Calmar Optcom, Inc.

 755 N Pastoria, Sunnyvale, CA, 94085
408/733-7800; fax 408/733-3800
contacts@calmaropt.com; www.calmaropt.com

#8528

Leading manufacturer of ultrafast fiber laser system for 13 years; pulse energy >10uJ, average power >10W. OEM seed femtosecond fiber laser at 1.5um /1um, 10GHz, 40GHz and 100(s)GHz picosecond fiber laser, EDFA/YDFA, bit rate multiplier, electrical pulse generator. Applications: biomedical imaging and multi photon microscopy, vision correctional surgery, testing and measurement. Contact: Peter Hu, Director of Sales and Marketing, phu@calmaropt.com; Claire Chen, Vice President of Marketing and Sales, claire@calmaropt.com.

Cambridge Technology, Inc.

 25 Hartwell Ave, Lexington, MA, 02421
781/541-1600; fax 781/541-1601
scanners@camtech.com; www.camtech.com


#8123

New Product: All Digital Scan Head Components for high speed, high accuracy, laser scanning applications.

Cambridge Technology, the world's leading supplier of galvanometer solutions for industry and laser microscopy such as confocal microscopes, OCT, multi-photon microscopy, LSOs, etc. Our patented galvanometer technology and servo driver architectures provide high-speed, smooth, linear, low-jitter, constant velocity line sweeps enabling clear, crisp, accurate images from your application making Cambridge Technology the choice supplier among leading microscope companies and research institutes. Contact: David Freihofer, Director, Sales and Marketing, davidf@camtech.com.

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CeramOptec Industries, Inc.

 515 Shaker Rd , East Longmeadow, MA, 01028
800/321-0790; fax 413/525-0611
salesengineering@ceramoptec.com; www.ceramoptec.com

#8227

CeramOptec Industries serves the medical and life science markets with optical fiber, fiber bundles, assemblies, spectroscopic fibers and vacuum products. CeramOptec produces stock and custom silica/silica fiber, PCS, HCS, silver halide optical fibers, capillary tubing and low loss bundles and assemblies for us from the deep UV to MIR. Products from -190C to 1000C temperature, low to high NA (0.12 to 0.53). From preform manufacture to finished product, high quality at competitive prices. Contact: Kevin Bakhshpour, Director of Sales, kevinb@ceramoptec.com; Cheryl Provost, Sales Engineer, cheryl.provost@ceramoptec.com.

Chroma Technology Corp

#8441



PO Box 489, 10 Imtec Ln, Rockingham, VT, 05101
800/824-7662; fax 802/428-2525
sales@chroma.com; www.chroma.com

Chroma Technology Corp. is an employee-owned company that specializes in the design and manufacture of precision optical filters and coatings. The most advanced coating techniques have been developed that provide the greatest accuracy in color separation, optical quality and signal purity economically for your OEM applications. We provide application engineering support, short cycle times and are as comfortable designing and manufacturing custom filters as we are our catalog items. Contact: Chris Conca, OEM Sales, cconca@chroma.com; Mark Kfoury, OEM Sales, mkfoury@chroma.com.

Chromodynamics

#8218

1195 Airport Rd #1, Lakewood, NJ, 08701
732/730-1877; fax 732/730-3547
info@chromodynamics.net; www.chromodynamics.net

New Product: HSi-300 Hyperspectral Imaging System.

Chromodynamics, Inc. brings state-of-the-art optical imaging techniques to today's medical challenges. The company applies revolutionary spectral imaging tools based on acousto-optics to critical application areas, such as biological research, medical diagnostics and machine vision. Contact: Alex Fong, Vice President, Sales and Marketing, afong@olinet.com; Elliot Wachman, Vice President Research and Development, ewachman@chromodynamics.net.

Coherent Inc.

#8314



5100 Patrick Henry Dr, Santa Clara, CA, 95054
408/764-4983; fax 408/764-4646
tech.sales@coherent.com; www.coherent.com

World's leading manufacturer of photonics-based products for a wide range of commercial and scientific applications. Industry's largest and most diverse selection of lasers - over 100 different standard models - plus crystals, precision optics and a wide range of laser test and measurement equipment. Highly reliable, high performance product lines include CO₂, continuous-wave, diode, diode module, diode-pumped solid-state, excimer, ion, tunable-dye, YAG, YLF and ultrafast lasers. Contact: Robert Bohorquez, Advanced Technical Sales, Robert.bohorquez@coherent.com; Joseph Jordan, Advanced Technical Sales, Joseph.jordan@coherent.com.

CVI Melles Griot

#8127



200 Dorado PI SE, Albuquerque, NM, 87123
505/296-9541; fax 505/298-9908
optics@cvimellesgriot.com; www.cvimellesgriot.com

CVI Melles Griot gets you what you need, when you need it. From the UV to the IR we offer unmatched breadth and flexibility in lasers, optical components, and electro-optical assemblies. Our extensive new catalog, along with our custom and build-to-print capabilities deliver solutions from prototype to high-volume, OEM quantities. Providing solutions for semiconductor, biotechnology, industrial, and basic research applications, CVI Melles Griot manufactures on three continents, and maintains sales and engineering centers in 11 countries worldwide.

Dayoptics, Inc.

#8421



20 Baihua Zhou Rd, Jinshan Pushang Industrial Park, Fuzhou Fujian, China, 350008
86 591 83215681; fax 86 591 83215359
ussales@dayoptics.com; www.dayoptics.com

New Product: High Power High Damage Threshold PBS: ~20J/cm² @ 1064nm 10ns, 20Hz, Optical contacted.

Dayoptics, Inc. designs and manufactures optical and crystal components for worldwide customers. We excel at producing reliable high-quality products at very competitive prices. Equipped with the advanced facilities, such as interferometer, spectrometer, we are able to control every process of production to guarantee high quality product. Meanwhile, Dayoptics maintains a staff of experienced engineers and an excellent management team, who make contribution to its growth and success. Contact: Daisy Wu, Manager, daisy.wu@dayoptics.com; Alice Wan, Marketing, alicewan@dayoptics.com.

DenseLight Semiconductors Pte Ltd.

#8620

6 Changi North St 2, Singapore, Singapore, 498831
65 6415 4488; fax 65 6415 7988
info@denselight.com; www.denselight.com

DenseLight Semiconductors is a leading developer and manufacturer of InP-based optoelectronics devices and photonic solutions (integrating optoelectronics, fiberoptics and electronics) for photonic-sensing (fiber optic, industrial monitoring, environmental, chemical, homeland-security), biomedical imaging, telecom/datacom transmission and tests. Current products: Superluminescent LEDs, ELED, Ultra Narrow Linewidth laser diodes, ASE Broadband Sources (CW/Modulated) and Tunable Single-Frequency Laser Module Contact: Lye-Hing Chua, Vice President Sales and Marketing, lhchua@denselight.com.

DiCon Fiberoptics, Inc.

#8220

1689 Regatta Blvd, Richmond, CA, 94804
510/620-5000; fax 510/620-4100
info@diconfiber.com; www.diconfiber.com

New Product: 1xN and NxN Optical Switches in VISible and NIR wavelengths ranges for cost-effective solutions.

DiCon Fiberoptics designs and manufactures Fiber optic Components and LED Lighting products for Biomedical and Microscopy applications. Our compact, durable, extremely reliable Optical Switch and VOA products offer improved sample throughput in scanning and analysis applications. DiCon microscope illuminators and other LED lighting products provide specific wavelength spectra for medical and illumination applications powered by multi-chip arrays in tunable white, RGB or UV wavelengths. Contact: Quata Ocano, Director of Marketing, qocano@diconfiber.com.

Edmund Optics

#8538



101 E Gloucester Pike, Barrington, NJ, 08007-1380
856/547-3488; fax 856/573-6272
sales@edmundoptics.com; www.edmundoptics.com

New Product: New coating capabilities offer high precision filters with excellent uniformity and repeatability.

Edmund Optics is a manufacturer and distributor of optical and imaging components for medical instruments and biological research applications. Products include lenses, prisms, filters, mirrors, opto-mechanical equipment, lasers, imaging lenses, CCD and CMOS cameras, capture boards and imaging systems. Our comprehensive selection of optical components are available off-the-shelf for quick delivery, or Edmund's engineers can help you design and manufacture custom components to meet your needs. Contact: Marisa Edmund, Vice President of Marketing and Communication, medmund@edmundoptics.com; Allan Kreutzer, Vice President of Global Sales, akreutzer@edmundoptics.com.

Electro Optics Magazine

#8442

8-10 Whiteladies Rd, Clifton, Bristol, United Kingdom, BS8 1PD
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sales@europascience.com; www.europascience.com

Electro Optics is the number one magazine for Europe's photonics market. If you need to do business in Europe, no other magazine is better positioned or better able to help you achieve your goals. Contact: Dominic Light, Business Development Manager, dominic.light@europascience.com; Alex Sullivan, Publishing Director, alex.sullivan@europascience.com.

Elforlight Ltd.

#8626

4B Brunel Close, Daventry Northants, United Kingdom, NN11 8RB
44 1327 300069
sales@elforlight.com; www.elforlight.com

New Product: Compact, cost effective, ultrafast laser. SWIFT emits 250fsec pulses at 1040nm at 100MHz.

Elforlight manufactures a range of cutting edge Diode Pumped Solid State lasers, CW, modelocked and q-switched, IR, visible and UV. Featured products include: HPG 5Watt green pump for Ti-Sapphire lasers. SPOT laser offering short q-switched pulses (<2ns) at up to 50kHz. SWIFT fsec laser, cost effective alternative to Ti-Sapphire. Applications include confocal and multi photon imaging, spectroscopy, MALDI mass spectrometry, holography, flow visualization, microfluidics, microdissection. Contact: Keith Oakes, info@elforlight.com; Steve Ebdon, info@elforlight.com.

EXALOS AG

#8219

SPIE Corporate Member

Wagistr 21, Schlieren, Switzerland, CH-8952
41 43 444 60 90; fax 41 43 444 60 99
sales@exalos.com; www.exalos.com

EXALOS, an ISO 9001:2000 certified company, is developing and selling advanced Superluminescent Light Emitting Diodes (SLEDs) for medical imaging (OCT), fiber optic gyroscopes, fiber optic test equipment and sensors. EXALOS SLEDs operate with wavelengths ranging from 650 to 1700 nm, with optical bandwidths up to 190 nm and with output powers up to 50 mW. EXALOS's portfolio of SLEDs provides customers with the optimum balance of price, time to market, performance, and size. Contact: Gene W. Covell, Vice President Sales, covell@exalos.com; Bernd Nestmeier, European Sales Manager, nestmeier@exalos.com.

Fastlite

#8232

45/47 Rue Croulebarbe, Paris, France, 75013
33 1 45 30 12 96; fax 33 1 45 30 12 97
info@fastlite.com; www.fastlite.com

FEMTOLASERS, Inc.

#8240

SPIE Corporate Member

124 Mount Auburn St N Ste 200 , Cambridge, MA, 02138
971/456-9920; fax 971/456-9922
infofli@femtolasers.com; www.femtolasers.com

New Product: XL™ 500: >500 nJ, <50 fs @ 5.2 MHz, INTEGRAL™: <10 fs, >400 mW, >100 nm, RAINBOW™ HP: <7 fs.

FEMTOLASERS is the premiere manufacturer of compact laser oscillator and amplifier solutions, offering optical pulses down to 7 fs with multi MW/GW peak powers at MHz/kHz repetition rates, respectively. FEMTOLASERS also feature a patented optics line of ultra-broadband dispersive/non-dispersive components. Applications: Attoscience, multiphoton microscopy, non-linear spectroscopy, plasma physics, optical coherent tomography, micro-machining of dielectric materials, THz generation.

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Fianium Inc.

#8132

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858 W Park St, Eugene, OR, 97401
541/343-6767; fax 541/343-1838
sales@fianium.com; www.fianium.com

Fianium is the leading manufacturer of high-performance ultrafast fiber lasers for diverse applications including bio-medical, materials processing and research. The company was founded with the objective to challenge the dominance of ultrafast DPSS and pioneered the development of new generation of high power ultrafast fiber lasers, including UV and supercontinuum laser systems, offering superior performance and reliability at a lower cost of ownership compared to conventional solid state lasers. Contact: Vince Cowan, vince.cowan@fianium.com; Renee Isley.

Fiberguide Industries, Inc.

#8315



1 Bay St, Stirling, NJ, 07980-1529
908/647-6601; fax 908/647-8464
info@fiberguide.com; www.fiberguide.com

New Product: High Power Laser Delivery Assemblies.

Supports OEM with comprehensive line of multimode, single mode and graded index optical fibers from UV-IR temperature ranges from -269°C to +700°C. Design and engineer assemblies with widest range of custom and standard endfittings/connectors and outer jackets to tailor a product to technical and economic requisites. Fiberguide is FDA registered as a Contract Manufacturer. Contact: Patrick Fung, Western Regional Sales Manager, pfung@fiberguide.com; Gary Churchill, Eastern Regional Sales Manager, gchurchill@fiberguide.com.

Fibertech Optica

#8133



330 Gage Ave Ste 11, Kitchener, ON, Canada, N2M 5C6
519/745-2763; fax 519/576-0885
info@fto.ca; www.fibertech-optica.com

Designer and manufacturer of patchcords, pigtails, spot-to-line converters, bundles and reflectance probes, linear and spaced v-groove arrays. Also manufacturer of specialty multimode all-silica, HCS, PCS, Hard Clad all-Silica fibers. Core diameters from 10um to 2000um. Spectral bands coverage from deep UV to MIR. Distributor of surgical fibers for KTP, diode, Nd:YAG and Holmium medical lasers. Contact: Jeff Dupuis, Sales and Marketing Manager, jeffdup@fto.ca.

Frankfurt Laser Co.

#8126



An den 30 Morgen 13, Friedrichsdorf, Germany, 61381
49 6172 27978 0; fax 49 6172 27978 10
sales@frlaserco.com; www.frlaserco.com

New Product: FLC presents new high power laser diodes in cooled packages (622nm to 2000nm, 0.2W to 30W).

FLC supplies CW single mode and broad area laser diodes (370nm to 12um with 1mW-15W), pulse IR laser diodes, super luminescent diodes in 650nm - 2300nm wavelength range in free space and fiber-coupled packages, high-power laser diode arrays with fiber output (2W-750W) CW and QCW, laser diode modules with high-quality glass optic, red, green, yellow and blue DPSS lasers, laser diode collimating and focusing optic, mid-IR 1.2um-4.3um LED lamps. Contact: Dr. V. Mazo, Sales Director, sales@frlaserco.com; K. Kreim, Sales Manager, kim.kreim@frlaserco.com.

Fresnel Technologies Inc.

#8135



101 W Morningside Dr, Fort Worth, TX, 76110
817/926-7474; fax 817/926-7146
info@fresneltech.com; www.fresneltech.com

Manufactures molded plastics, Fresnel lenses, and related optical components, as well as IR-transmitting materials and optics made from them. Specialties include lens arrays for passive infrared applications, diffusers and microlens arrays for illumination, and optics for environmental monitoring at 3.4 micrometers. Services now include in-house coatings and metrology. Design assistance, diamond machining, and complete tooling for prototyping to production also available. Contact: Linda H. Claytor, Vice President, lclaytor@fresneltech.com; Deb Wood, Administrator, dwood@fresneltech.com.

Fujikura Ltd.

#8147

3001 Oakmead Village Dr., Santa Clara, CA, 95051-0811
408/748-6991; fax 408/727-3415
sales@fujikura.com; www.fujikura.com

Fujikura Ltd. is a global manufacturer of optical fiber and electronics components. The company's products include large-core fibers, specialty single-mode fibers, laser fibers, cables, lensed fibers, coherent image fibers for endoscopy, fiber bundles, tapered fibers, capillary tubing, optical fusion splicers, test equipment, UV spot cure equipment, photonics components and pressure sensors. Fujikura has manufacturing operations in the United States, Mexico, Japan, Thailand and China. Contact: Sean Foley, Market Manager, sean.foley@aftele.com; MingMing Duan, ming.duan@aftele.com.

General Photonics Corp.

#8230

5228 Edison Ave, Chino, CA, 91710
919/590-5473; fax 919/902-5536
mfang@generalphotonics.com; www.generalphotonics.com

GFM-3D Metrology USA, Inc.

#8618

5700 Granite Pkwy Ste 200, Plano, TX, 75024
972/731-2515; fax 972/767-3018
becky.bell@gfm3d.com; www.gfm3d.com

Grintech GmbH

#8139



Schillerstr 1, Jena, Germany, 07745
49 3641 2276 0; fax 49 3641 2276 11
info@grintech.de; www.grintech.de

GRINTECH manufactures gradient index (GRIN) lenses and lens systems for applications in microendoscopy, OCT and medical imaging. Contact: Herbert Stuermer.

Hamamatsu Corp.

#8233



360 Foothill Rd, Bridgewater, NJ, 08807-2932
908/231-0960; fax 908/231-1218
usa@hamamatsu.com; www.sales.hamamatsu.com

New Product: C10988MA(X) "thumb-size" spectrometer head for portable color management devices (340 to 750 nm).

Hamamatsu Corporation is the North American subsidiary of Hamamatsu Photonics K.K. (Japan), a leading manufacturer of devices for the generation and measurement of infrared, visible, UV light, and x-rays. These devices include photomultiplier tubes, photodiodes, image sensors, CCD cameras, and light sources. Hamamatsu Photonics also offers specialized systems for fluorescence correlation spectroscopy, drug discovery, and other biomedical applications. Contact: Adrienne Iguchi, Marketing Engineer, aiguchi@hamamatsu.com; Chris DePalma, Marketing Engineer, cdepalma@hamamatsu.com.

See What's New



Ready to see the brand-new technologies from Ocean Optics? Be sure to visit us at this year's Photonics West to get a first look at deep UV sensing, multichannel spectroscopy, handheld color (CIE) measurement, multispectral imaging technologies and a whole lot more.



www.oceanoptics.com
info@oceanoptics.com
+1 727-733-2447

BOOTH 1501

Headwall Photonics

#8002



601 River St, Fitchburg, MA, 01420
978/353-4100; fax 978/348-1864
information@headwallphotonics.com;
www.headwallphotonics.com

New Product: Hyperspec Point and Stare-High performance products for spectral imaging in VNIR, NIR, and SWIR ranges.

Leading designer and manufacturer of imaging spectrometers and application-specific spectroscopy instruments for OEM customers in the lab, test and measurement, and analytical industries. Core technology: high performance spectral instruments with high efficiency optics characterized by high signal-to-noise and high dynamic range. Products: Hyperspectral imaging sensors, Raman spectrometers, single and dual-beam spectrometers, original holographic gratings. Formerly American Holographic/Agilent Technologies. Contact: David Bannon, CEO, Information@headwallphotonics.com; Jay Zakrzewski, Business Development, jayz@headwallphotonics.com.

Hellma USA, Inc.

#8426



80 Skyline Dr, Plainview, NY, 11803
516/939-0888; fax 516/939-0555
info@hellmausa.com; www.hellmausa.com

Manufacturer of Hellma Optics, Photometer Cells, Fiber Optic Immersion Probes, Photometric Calibration Standards, Quartz Microplates. Cylindrical/Flat Optics, Beam Splitters and Mirrors for Laser and other applications. Supplier of Heraeus Light Sources including D2, HCL, PID, Spectral Line; Zeiss MMS/MCS Monolithic Miniature Spectrometer modules covering 190-2200nm in combination (16 bit S/N); Tec5 Interface electronics for display/readout of PDAs and CCDs. Custom designs of all products. Contact: Dan Fields, dfields@hellmausa.com; Eugene Friedmann, efriedmann@hellmausa.com.

High Q Laser (US), Inc.

#8222

118 Waltham St, Watertown, MA, 02472
617/924-1441; fax 617/924-5554
office@highq-us.com; www.highqlaser-us.com

High Q Laser is a leading manufacturer of ultrafast all-diode-pumped, solid state pico- and femtosecond oscillators and regenerative amplifiers. All lasers are based on direct diode-pumping and semiconductor saturable absorber mirror (SESAM) modelocking. The set-up of High Q Laser systems is compact and modular - operation and installation is easy. Sealed-off technology leads to long life times and reliability - saving time and budget. Contact: Alex Lang, Sales and Technical Support Manager, alex.lang@highq-us.com.

High Tech Photonics

#8617

23 Alafaya Woods Blvd, Oviedo, FL, 32765
800/335-5582; fax 888/335-5587
jim@jtingram.com; www.ht-photonics.com

New Product: ATR Probes for use with endoscopes.

Supplier of Fiber Optic Assemblies for use in the MID IR (up to 18 μ m), NIR, VIS and UV. Accessories for FTIR, fiber coupling, collimating, focusing, laser delivery, Q MAC Trace gas measurement systems, Fiber optic probes for MID IR (up to 18 μ m), NIR, VIS, UV. Contact: Jim Ingram, Marketing Manager, Jim@jtingram.com.

id Quantique SA

#8733

Chemin de la Marbrerie 3, Carouge, Geneva, Switzerland, 1227
41 22 301 8371; fax 41 22 301 8379
info@idquantique.com; www.idquantique.com

New Product: New Product: 900-1150 nm InGaAsP APD, id400.

Photodetection modules including the new model id400 for single photon detection at 1064nm. Also presenting the id100 silicon photon counter for visible-NIR and the id201 InGaAs photon counter for telecom wavelengths. The id100 has the world's timing of 40 ps and noise as low as 1Hz. The id201 has adjustable quantum efficiency to 25%. Contact: Jim Melnyk, Applications Engineer, melnyk@boselec.com.

Imagine Optic

#8341

18 Rue Charles De Gaulle, Orsay, France, 91400
33 1 64 86 15 60; fax 33 1 64 86 15 61
contact@imagine-optic.com; www.imagine-optic.com

New Product: Mirao 52-e is a unique deformable mirror featuring uncomparable deformation capability.

Imagine Optic is the world's leading providers of Shack-Hartmann wavefront sensing, adaptive optics technologies and services in applied optics. We work with scientists and industrials in domains including pure science, industrial quality control, space and defense, semiconductors... From X-EUV, through the visible light spectrum and on to NIR (near infrared), we develop, manufacture, distribute and support the largest range of wavefront measurement and correction technologies available. Contact: jerome Ballesta, US Sales Manager, jballesta@imagine-optic.com; mathieu Bardon, Sales Engineer, mbardon@imagine-optic.com.

IMRA America, Inc.

#8116



1044 Woodridge Ave, Ann Arbor, MI, 48105
734/930-2560; fax 734/930-9957
lasers@imra.com; www.imra.com

New Product: IMRA's Femtolite FX-100 offers a convenient source of 150fs, 100mW average power at 800nm.

IMRA is a world-leading manufacturer of compact, easy-to-use ultrashort-pulsed fiber lasers. IMRA's pioneering ultrafast technology includes Femtolite Series oscillators and FCPA μ Jewel Series amplified lasers. Maintenance-free solutions for turnkey use in nonlinear microscopy, biomedical imaging and biological ablation applications. IMRA provides lasers suitable for OEM use and easy to incorporate in lab setups.



METER BOARD SPONSOR

Innolume GmbH

#8120



Konrad-Adenauer -Allee 11, Dortmund, Germany, 44263
49 231 47730 200; fax 49 231 47730 250
info@innolume.com; www.innolume.com

New Product: -1064nm, 1210nm, 1320nm high power diode laser -1064nm high power SOA.

INNOLUME is the world-wide leading manufacturer of diode lasers and broadband sources in the operational range from 1064-1320nm. Contact: Guido Vogel, Business Development Manager.

Innovative Photonic Solutions

#8008

4260 US Rte 1 Ste 3, Monmouth Junction, NJ, 08852
732/355-9301; fax 732/355-9300
www.innovativephotonics.com

New Product: The I0785S50100B is a TO-56 pkgd, 100 mW stabilized laser with integral Raman filter and thermistor.

IPS specializes in the manufacture of high performance spectrum stabilized lasers for use in Raman spectroscopy, fiber laser pumping and seeding and remote sensing applications. Our technology enables us to lock the laser to any wavelength without complex feedback mechanisms. Products include multi-mode and single frequency lasers and span the 630 nm - 2400 nm wavelength range. Lasers are available in 14-Pin BF packages or in turn-key modules with integral laser and temperature control electronics. Contact: Scott Rudder, Vice President Marketing and Sales, srudder@innovativephotonics.com; John Connolly, President and Chief Executive Officer, jconnolly@innovativephotonics.com.

InPhenix Inc.

#8524

250 N Mines Rd, Livermore, CA, 94551
925/606-8809; fax 925/606-8810
sales@inphenix.com; www.inohenix.com

InPhenix Corporation is a leading developer and manufacturer of Indium-Phosphide (InP) and Gallium Arsenide (GaAs) based active optoelectronic chips, devices and modules for the telecom, datacom, defense, biomedical and industrial markets. InPhenix's products include Semiconductor Optical Amplifiers (SOAs), Superluminescent Light Emitting Diodes (SLEDs), Fabry-Perot Lasers and Photodetectors. Contact: Ken Chang, Sales Manager, kchang@inphenix.com; Steve Vitkovsky, Sales Manager, svitkovsky@inphenix.com.

IOP Publishing Ltd.

#8330

Dirac House, Temple Back, Bristol, United Kingdom, BS1 6BE
44 1179 297481; fax 44 1179 301178
info@iop.org; www.iop.org

IOP Publishing, a not for profit company wholly owned by the Institute of Physics, is one of the largest and most dynamic publishers of physics information in the world. Our publishing activity, which dates back to 1874, includes a wide range of journals, magazines and community websites. We partner more than a dozen international organizations and have a global network of offices located in Bristol, Philadelphia, Washington DC, Munich, St Petersburg, Moscow, Beijing and Tokyo. Contact: Robert Fisher, Group Advertising Manager, robert.fisher@iop.org; Rose Guardino, Sales Manager, guardino@ioppubusa.com.

IPG Photonics Corp.

#8226

50 Old Webster Rd, Oxford, MA, 01540
508/373-1100; fax 508/373-1103
sales.us@ipgphotonics.com; www.ipgphotonics.com

IPG Photonics manufactures active fiber lasers, direct diode and amplifiers operating at .7 - 2 microns for application in Material Processing, Communications and Scientific Research. Industrial lasers operating at 1 micron are available from 10 watts to 50 kilowatts. These devices feature low divergence, air cooling, high electrical efficiency and unparalleled diode life.

IRphotonics

#8514

627 McCaffrey, St Laurent, QC, Canada, H4T 1N3
514/345-6982; fax 514/227-5210
corporate@irphotonics.com; www.irphotonics.com

New Product: High Power Delivery Fiber for Er:YAG lasers with high proof strength and improved transmission.

IRphotonics is a leading manufacturer of advanced infrared fiber optic and material for use in industrial, medical, telecom and defense and aerospace applications. Based on a ground-breaking process allowing the production of infrared glass and optical fiber with exceptional properties in the 300 to 5500 nm optical window, IRphotonics' iGuide™ family of product can also transmit light from UV to the Mid infrared allowing for a wide range of multi-spectral applications. Contact: Ruben Burga, Vice President Sales, rburga@irphotonics.com; Antoine Kasprzak, Director of Sales, akasprzak@irphotonics.com.

JDSU

#8515

430 N McCarthy Blvd, Milpitas, CA, 95035
408/546-5000; fax 408/546-4300
info@jdsu.com; www.jdsu.com

JDSU is one of the world's largest independent producers of optical thin film filters, coatings and components. JDSU Custom Optics Product Group (originated as the Optical Coating Laboratory, Inc - OCLI in 1948) continues to advance optical coating innovation. We have a diverse portfolio, including standard and custom ultraviolet (UV), visual, and infrared (IR) filters as well as custom polarization components, serving the most demanding needs of the biomedical instrumentation market. Contact: Chris Vomvolakis, Marketing Manager, chris.vomvolakis@jdsu.com.

JENOPTIK Laser, Optik, Systeme GmbH - Business Unit Microoptics

#8417

Goeschwitzer Strasse 25, Jena, Germany, 07745
49 3641 65 2441; fax 49 3641 65 5842
microoptics@jenoptik.com; www.jenoptik-los.com

JENOPTIK Microoptics Business Unit develops and manufactures customized assemblies and optical modules for a variety of applications in industry, semiconductor fabrication, ophthalmology and the security and defense sector. Flexibility of design, manufacturing know-how and a special base of in-house technologies are the assets to warrant our product offering to be consistently extended by new solutions which are even smarter and more complex.

JENOPTIK Laserdiode GmbH

#8326

Goeschwitzer Str 29, Jena, 07745
49 3641 65 4300; fax 49 3641 65 4392
jold@jenoptik.com; www.jold.com

New Product: Fiber-coupled high-power diode laser with 100 W from 0.4 mm fiber, forced air cooled.

JENOPTIK Laserdiode GmbH is the diode laser manufacturer in the Jenoptik group. Since 1993 the company has gone from a business providing products for laser researchers to a manufacturer of high-end quality diode lasers for industrial use (pumping of solid-state and fiber lasers, materials processing, medical applications). For years its main focus is centered on quality. Therefore, today the company is the quality leader in production of diode lasers with a long lifetime and high reliability. Contact: Dr. Detlev Wolff, Manager Sales and Marketing, detlev.wolff@jenoptik.com; Thomas Wittschirk, Regional Sales Manager, thomas.wittschirk@jenoptik.com.

JT Ingram Sales and Marketing

#8617



23 Alafaya Woods Blvd, Oviedo, FL, 32765
800/335-3382; fax 888/336-5587
www.jtingram.com

New Product: MID Infrared ATR Probes for use with endoscopes.

Supplier of Fiber Optic Assemblies for use in the MID IR (up to 18 μ m), NIR, VIS and UV. Accessories for FTIR, fiber coupling, collimating, focusing, laser delivery, Q MAC Trace gas measurement systems, Fiber optic probes for MID IR (up to 18 μ m), NIR, VIS, UV. Contact: Jim Ingram, Marketing Manager, Jim@jtingram.com Contact: Jim Ingram, jim@jtingram.com.

Kapteyn-Murnane Labs. Inc.

#8134



1855 S 57th Ct, Boulder, CO, 80301
303/544-9068; fax 303/821-2284
sales@kmlabs.com; www.kmlabs.com

Koheras A/S

#8434



Blokken 84, Birkerød, DK, Denmark, DK-3460
45 4348 3900; fax 45 4348 3901
enquiry@koheras.com; www.koheras.com

Kohoku Kogyo Co., Ltd.

#8430

1623 Takatsuki , Takatsuki-Cho Ika-Gun, Shiga, Japan, 529-0241
81 749 85 6260; fax 81 749 85 3215
sales@kohokuamerica.com; www.kohokuamerica.com

New Product: Biomedical, DNA-, Protein- chips, arrays, multi-hole ferrules, arrays and pigtails, specialty fibers.

Kohoku Kogyo Co. (est. 1959) in Shiga (near Kyoto), Japan is a major supplier for multi-hole ferrules, multi-channel fiber arrays, micro-hole arrays. In 2002 and 2003 Kohoku silica 2-channel fiber array was chosen the best in Ultra-High precision Fiber array by "Lightwave". Contact: Boris Reichman, President, Kohoku America, breichman@kohokuamerica.com.

Kyosemi Opto America Corp.

#8423

3003 Bunker Hill Ln Ste 102, Santa Clara, CA, 95054
408/492-1486
info@kyosemi-opto.com; www.kyosemi-opto.com

New Product: KPDU37S1 InGaN UV PD 360nm-380nm sensor; KPDU27 GaN UV PD 254nm sensor; KEDE1458K InGaAs 1450nm LED.

Kyosemi has over 28 years experience designing and manufacturing components for Optical Sensing, Control Sensing, Optical Communication and Photo-Voltaic Energy using Silicon and Compound Semiconductor materials. Product line-up includes: UV LED and Photo-Detectors, InGaAs NIR PD, SiAPD, InGaAs APD, PD Arrays (Si, GaAs and InGaAs), Mini-Can (World smallest TOCAN package), VCSEL, Parallel Beam LED, Pin-Point LED, Multi-wavelength LED, SMD Package options. Contact: Steve Iwashita, Vice President Sales and Marketing, iwashita@kyosemi.co.jp.

Lambda Research Corp.

#8115



25 Porter Rd, Littleton, MA, 01460-1434
978/486-0766; fax 978/486-0755
sales@lambdare.com; www.lambdare.com

New Product: TracePro 5.0 Optomechanical Design Software includes powerful new source editor for fluorescence.

Lambda's suite of optical design tools enable product development teams to accurately model and analyze designs, minimizing the cost and time associated with iterative hardware prototyping and laboratory testing. TracePro's CAD interoperability and its ability to import material properties from measured biological samples allow scientists and engineers across the fields of chemistry, optics, mechanics, material science and biology to effectively communicate system level design elements. Contact: Barbara Calt, Director of Sales, sales@lambdare.com.

Laser Diode, Inc.

#8447

2 Olsen Ave, Edison, NJ, 08820-2419
732/549-9001; fax 732/906-1559
www.laserdiode.com

New Product: CWR635 visible laser 500mW from 100 μ m source. Available in TO style of DIL with fiber and TE cooler.

Laser Diode Inc. offers a comprehensive line of high power laser diodes. Products include: short pulse lasers from 850 to 1550 nanometers and high power CW lasers at 635nm and 808nm for photodynamic therapy and direct diode medical and dental applications. Short pulse lasers have peak powers up to 300W. The 635nm 100 μ m laser is available up to 500mW. Fiber coupled 635nm arrays are available. The 808nm lasers are available up to 5W in a variety of configurations. Contact: Peggy Scarillo, Inside Sales Manager, pscarillo@tycoelectronics.com; George Minakas, High Power Product Manager, gminakas@tycoelectronics.com.

Laser Quantum Ltd.

#8444

Vale Rd, Stockport , United Kingdom, SK4 3 GL
44 161 975 5300; fax 44 161 975 5309
sales@laserquantum.com; www.laserquantum.com

Laser Quantum is a manufacturer of premium grade laser systems and a recognised contributor to the photonics industry. Specialising in CW green, blue and infrared solid state lasers - including single frequency and stable high power visible lasers. Laser Quantum's products are known globally for reliability, compactness, rugged design, excellent performance and long lifetime. All products have been well received across industries such as aerospace, medicine, biomedicine and research.

Laser Safety Industries

#8129



6311 Cambridge St, Minneapolis, MN, 55416
888/752-7370; fax 952/405-6949
rkeithp@yahoo.com;

Precision Instrumentation for Science and Industry

OPTICAL PRODUCTS

We've expanded our line of optical products to include the **SmartShutter™**, a full-featured controllable shutter, and the **Lambda 10-3 controller**, capable of commanding up to three filter wheels and two shutters. Other optical instruments include the **DG-4** high-speed wavelength switcher, **Lambda XL** 10,000 hour light source, and a full range of filter wheels. Robust, reliable, and versatile, our imaging hardware can be driven by most imaging software and adapted to any microscope.



MICROMANIPULATION

Rock-solid precision and sub-micron accuracy. Our expertise in electromechanical engineering and stepper-motor control is evident in the sub-micron resolution of our highly stable motorized and mechanical micromanipulators, stages, and translation systems. Our high performance designs offer precision smooth, ergonomic, micro-movements adaptable to diverse system designs and platforms.



DESIGN AND MANUFACTURING

We've combined extensive years of motor control experience and in-house precision CNC machined parts to create a line of versatile optical products to serve the tremendous growth in photonics, optical research, and imaging techniques. Our extensive engineering expertise and 50,000 square foot state-of-the-art manufacturing facility, allow us to rapidly fabricate custom imaging solutions at economical prices, making us a preferred OEM vendor for life sciences and industry.



MICROPIPETTE FABRICATION

Sutter Instrument has been a recognized leader in micropipette fabrication technology for over 30 years. Our puller technology includes the **P-2000**, an advanced CO₂ laser-based micropipette puller, that has been critical in the development of near-field scanning optical microscopy, fabricating fused silica probes with tip diameters as small as 20 nanometers.



SUTTER INSTRUMENT

ONE DIGITAL DRIVE, NOVATO, CA, 94949 | PHONE: 415.883.0128 | FAX: 415.883.0572
EMAIL: INFO@SUTTER.COM | WWW.SUTTER.COM

Light Age, Inc.

#8614

500 Appar Dr, Somerset, NJ, 08873
732/563-0600; fax 732/563-1571
www.lightage.com

New Product: Our MP Raman Converter provides wavelength-shift capability to the output of most laser systems.

Light Age, Inc. develops, manufactures and markets solid-state laser systems for aesthetic procedures and medical device Research and Development. Contact: Ado Umezawa, Vice President of Business Development, aumezawa@lightage.com; Dr. Donald Heller, CEO, dheller@lightage.com.

LINOS Photonics, Inc.

#8516



459 Fortune Blvd, Milford, MA, 01757-1723
508/478-6200; fax 508/478-5980
info@linos-photonics.com; www.linos-photonics.com

New Product: LALF Lens for high resolution and high sensitivity Bio imaging applications.

Linis is a manufacturer of sophisticated optical systems that operates all over the world. Linis is a development partner and supplier for customers in such growth markets as lasers, optical metrology, medicine, biotechnology and semiconductors. The company joined the Qioptiq Group, which is an international leader in the design and production of high-precision optical components and modules for military applications, in June 2007. Contact: Dennis Chepulis, Business Division Manager, Dennis.Chepulis@us.linos.com; Dr. Frank Guse, Manager Business Unit Biophotonics, frank.guse@linos.de.

Lockheed Martin Aculight

#8317



22121 20th Ave SE, Bothell, WA, 98021
425/482-1100; fax 425/482-1101
info@aculight.com; www.aculight.com

Lockheed Martin Aculight designs, develops and manufactures lasers and laser-based systems for medical research and OEM apps operating from ultraviolet-mid-infrared. Our technologies address unique operating parameters and wavelengths for Otolaryngology, Neurology, Ophthalmology and general surgical apps. The latest med research device is an infrared nerve stimulator that provides higher resolution, non-contact and artifact-free nerve stimulation for research apps that is unachievable with electrical methods. Contact: Mark Bendett, Director, Medical Products Group, mark.bendett@lmco.com; Jonathon Wells, Senior Scientist / Biomedical Liaison, jonathon.wells@lmco.com.

Lumencor, Inc.

#8521

15455 NW Greenbrier Pkwy, Beaverton, OR, 97006
503/530-1008; fax 503/536-6741
info@lumencor.com; www.lumencor.com

New Product: AURA light engines are bright, multicolor lighting subsystems for bioanalysis.

Lumencor, Inc. was founded to provide illumination subsystems for today's bioanalytical instruments and tomorrow's portable monitors. Solid state sources provide bright, multicolor, narrow band, stable, durable light across the UV-Vis-NIR spectrum. Lumencor light engines will enhance overall instrument performance and reduce cost. A four color product in a compact, aligned box is available with up to 1 kHz switching times. No external filtering or modulation is required. Contact: Carole Levers, Director of Marketing and Sales, carole.levers@lumencor.com; Claudia Jaffe, V.P. Business Development, claudia.jaffe@lumencor.com.

Mad City Labs, Inc.

#8527



2524 Todd Drive, Madison, WI, 53713
608/298-0855; fax 608/298-9525
sales@madcitylabs.com; www.madcitylabs.com

New Product: C-Focus system: eliminates microscope focus drift, 1 button operation, piezo precision.

Mad City Labs designs and manufactures high precision, piezo based nanopositioning devices for research and industry. Our products incorporate innovative true flexure guided (decoupled) designs, proprietary PicoQ sensor technology and closed loop control. Our PicoQ sensors yield systems with low drift and superior stability. System attributes include picometer resolution, high speeds, real time position sensing. Suitable for microscopy, imaging, metrology and beam steering applications. Contact: Technical Sales, General Enquiries, mcigen@madcitylabs.com.

Marlow Industries, Inc.

#8333

10451 Vista Park Rd, Dallas, TX, 75238-1698
214/340-4900; fax 214/341-5212
info@marlow.com; www.marlow.com

Marlow Industries is the world leader in quality thermoelectric cooling technology. For more than 30 years, Marlow Industries has developed and manufactured thermoelectric coolers (TECs) and subsystems for the aerospace, defense, medical, commercial, industrial, high-speed integrated circuits and telecommunications markets. Marlow is Telcordia and ISO 9001:2000 compliant and a Malcolm Baldrige National Quality Award winning company. Contact: Jerry Liermo, Market Manager, Medical, jliermo@marlow.com; Marketing Communications, Alicia Saddock, asaddock@marlow.com.

Medical Laser Report

#8518

98 Spit Brook Rd, Nashua, NH, 03062
603/891-0123

MEMS Optical Inc.

#8417



205 Import Cir, Huntsville, AL, 35806
256/859-1886; fax 256/859-5890
info@memsoptical.com; www.memsoptical.com

MEMS Optical, Inc. is a leading supplier and manufacturer of high performance refractive and diffractive microoptics and MEMS devices. MEMS Optical provides solutions to diverse markets such as defense and security, information and communications, industrial and semiconductor equipment, general illumination and healthcare and life sciences. MEMS Optical continues to develop and improve microoptics applications through the use of grayscale technology and other proprietary processes.

Menlo Systems GmbH

#8427

Am Klopferspitz 19, Martinsried, Germany, 82152
49 89 189 166 0; fax 49 89 189 166 111
sales@menlosystems.com; www.menlosystems.com

Michelson Diagnostics Ltd. #8731

11A Grays Farm Production Village, Grays Farm Rd Orpington, Kent, United Kingdom, BR5 3BD
44 0 208 308 1695; fax 44 0 121 275 6237
administration@md-ltd.co.uk; www.michelsondiagnostics.com

New Product: EX1301 OCT Microscope - research applications, instant images, sub-surface microscopic detail.

Michelson Diagnostics is the UK's leading supplier of Optical Coherence Tomography scientific research and medical imaging equipment. With breakthrough four beam technology, the EX1301 OCT Microscope offers research applications in material science, tissue engineering, art restoration and cancer, the best commercially available sub-surface OCT images. Our turnkey products deliver real time images at near cellular resolution with an optional 3D facility. Contact: Gordon McKenzie, Applications Director, gordon.mckenzie@md-ltd.co.uk; Jon Holmes, Chief Executive Officer, jon.holmes@md-ltd.co.uk.

MICOS USA #8316

SPIE Corporate Member

15375 Barranca Pkwy Ste G-101, Irvine, CA, 92618
949/480-0538; fax 949/480-0538
mschneider@micosusa.com; www.micosusa.com

MICOS serves the high-precision positioning market including industry and research with an emphasis on laser and micro-wave technology, communications, semi-conductor technology and micro-manipulation. We offer a wide range of precision positioners and control electronics as well as complete system integration services. Additionally, MICOS is known as the premier supplier for vacuum, clean room and extreme temperature applications. Contact: Manfred Schneider, mschneider@micosusa.com.

Micro Care Corp. #8005

595 John Downey Dr, New Brittan, CT, 06051
860/827-0626; fax 860/827-8105
techsupport@microcare.com; www.microcare.com

MicroCare produces nonflammable optical cleaners that replace alcohol, acetone and other solvents. They are engineered for cleaning lasers, lenses, filters, diffraction gratings, prisms and any other optical device. Packaged in spill-proof, pocket-sized pump bottles, they remove oils, fingerprints, dust and lint. Safe for your components, your people and the environment, they enable you to clean faster, better, at lower cost with less waste. ISO 9001:2000 registered. Contact: Tech Support, TechSupport@MicroCare.com; Harvey Stone, Product Manager, HarveyS@MicroCare.com.

Micro Laser Systems, Inc. #8619

SPIE Corporate Member

12841 Western Ave Ste H, Garden Grove, CA, 92841
714/898-6001; fax 714/897-0979
sales@microlaser.com; www.microlaser.com

New Product: Radial Polarizer and Low cost 405nm diode laser.

We are a manufacturer of Diffraction Limited Free Space and Fiber Coupled Diode Laser Systems ranging from 375nm to 1600nm. Most lasers have a single longitudinal mode with high stability or are DFB type with even narrower linewidths. Accessories include beam expanders, filters, focusing optics, isolators, fiber collimators, SM and PM fiber splitters and wavelength combiners. Semi-custom and custom lasers and fiber systems are routinely manufactured for OEM users. Contact: Norma Adachi, Marketing Manager, norma@microlaser.com.

MPA Crystal Corp. #8517

SPIE Corporate Member

1702-L Meridian Ave., #234, San Jose, CA, 95125
408/300-0301; fax 408/300-0282
pmpa@mpa-crystal.com; www.mpa-crystal.com

MPB Communications Inc. #8420

SPIE Corporate Member

147 Hymus Blvd, Pointe-Claire, QC, Canada, H9R 1E9
514/694-8751; fax 514/694-6869
info@mpbc.ca; www.mpbcommunications.com

New Product: New to our VFL-P Series of visible fiber lasers: 514, 628, and 642 nm. Adjustable up to 200 mW CW.

Since 1977, MPBC has been manufacturing high-performance photonic products for the military, telecommunications, industrial and research markets. MPB products include the world's smallest Excimer Lasers; Raman Fiber Lasers and Amplifiers; Visible Polarized Yellow/Green/Orange/Red, Ytterbium, Erbium-Ytterbium, and Passively Mode-Locked Fiber Lasers; high-power EFAs, C- and L- Band Erbium Broadband Sources, CombSources, FBGs, etc. Contact: Claudette Linton, Account Executive, claudette.linton@mpbc.ca; Kim Boumansour, Account Executive, kim.boumansour@mpbc.ca.

Multiwave Photonics #8006

Rua Eng Frederico Ulrich 2650, Moreira da Maia, Portugal, 4470-605
351 22 9408260; fax 351 22 9408261
www.multiwavephotonics.com

New Product: Broadband Source @1µm, high performance, compact and cost-effective source for OCT at 1µm.

Multiwave offers next generation pulsed fiber lasers that allow the user to control its key operating parameters in unique ways. Multiwave also offers other innovative optical sources based on fiber-optic technologies, such as cw and pulsed broadband and narrowband sources, as well as single polarization optical amplifiers and diode drivers. Contact: Steven Wagner, Director of Sales and Marketing, swagner@multiwavephotonics.com; Jose Salcedo, Chief Executive Officer, jsalcedo@multiwavephotonics.com.

National Aperture, Inc. #8546

SPIE Corporate Member

16 Northwestern Dr, Salem, NH, 03079
603/893-7393; fax 603/893-7857
sales@nationalaperture.com; www.nationalaperture.com

Newport Corp. #8221

SPIE Corporate Member

1791 Deere Ave, Irvine, CA, 92606-4814
949/863-3144; fax 949/253-1680
sales@newport.com; www.newport.com

New Product: SmartTable® OTS™ Optical Table System.

At Newport we believe that the best way to enhance life and fuel discovery is to support experts, by being experts. As a global company, we draw upon expertise from around the world to deliver knowledge and solutions that make manage and measure light. Combined with the expertise from Spectra-Physics Lasers, Oriel Instruments, Richardson Gratings and Corion Fluorescence Filters, we partner with scientists, engineers, and OEMs to provide them with solutions that help make a world of difference. Contact: Arnd Kruger, arnd.kruger@spectra-physics.com; Magnus Bengtsson, magnus.bengtsson@newport.com.

BiOS Exhibitor Directory



COFFEE BREAK SPONSOR

NOIR LaserShield

#8244

SPIE Corporate Member

6155 Pontiac Trl, South Lyon, MI, 48178
800/521-9746; fax 734/769-1708
www.noirlaser.com

New Product: NoIR announces a line of High Visibility filters: 10 with VLT >50% and 15 >35%.

NoIR LaserShields provide industry-defining protection and visibility with an eye on comfort. NoIR offers 85 laser protective filters with higher Optical Densities, L-ratings and Visible Light Transmittance in more frame styles than others, making LaserShields the point where safety and comfort converge. Contact: David W. Bothner, Marketing Director, david.bothner@noirlaser.com; Mary Klinke, International Sales, mary.klinke@noirlaser.com.

Novacam Technologies Inc.

#8340

277 Lakeshore Rd Ste 04, Pointe-Claire, QC, Canada, H9S 4L2
514/694-4002; fax 514/630-6420
sales@novacam.com; www.novacam.com

New Product: Microcam-4D - Swept Source SS-OCT detector for imaging in bio-photonics and industrial applications.

Novacam Technologies is manufacturer of OCT-Optical Coherence Tomography detectors for cross section imaging of the tissue for bio-medical applications and fiber-based profilometers based on low coherence interferometry with precision of less than 1 micron μm . Profilometers are used for surface mapping and inspection, roughness measurements, process control, multi-layer film thickness, deposition testing, metrology and profilometry in inhospitable environments and restricted spaces. Contact: Vuk Bartulovic, President.

NovaWave Technologies

#8144

900 Island Dr #101, Redwood City, CA, 94065
650/610-0956; fax 650/610-0986
www.novawavetech.com

New Product: Novawave's IRIS™ 1000, is the world's 1st commercially available turnkey, DFG-based, laser system.

NovaWave's mission is to develop next-generation, laser-based chemical sensors for a wide range of commercial and military applications. These fieldable, sensors are suitable for chemical and biological agent detection, trace explosives sensing, greenhouse gas and pollution monitoring, and basic and applied research. NovaWave offers enabling photonics tools, such as high performance optical and fiberoptic components, turnkey laser sources for spectroscopy, and optical metrology instrumentation. Contact: Larry Peterson, Sales Manager, lcpeterson@novawavetech.com; James Scherer, President, jjscherer@novawavetech.com.

Nuferm

#8243

SPIE Corporate Member

7 Airport Park Rd, East Granby, CT, 06026
860/408-5000; fax 860/408-5080
info@nuferm.com; www.nuferm.com

Nutfield Technology, Inc.

#8001

49 Range Rd, Windham, NH, 03087
603/893-6200; fax 603/893-6214
sales@nutfieldtech.com; www.nutfieldtech.com

New Product: QuantumScan-30 galvanometer for 20 to 40 mm apertures. ScanWare Windows® based scanhead control software.

Manufacturers of standard and custom laser scanning components. Precision multi-axis scan heads with PC interface and Windows® control software. Moving magnet galvanometers for raster and vector applications. Optical scanning solutions for 5- 50 mm apertures and all laser wavelengths. Contact: Rolland Zeleny, Vice President Sales and Marketing.

Omega Optical, Inc.

#8215

SPIE Corporate Member

Delta Campus , 21 Omega Drive, Brattleboro, VT, 05301
802/251-7300; fax 802/254-3937
sales@omegafilters.com; www.omegafilters.com

Omega Optical offers standard and custom optical filters for fluorescence applications in life science and biomedical industries. The extensive range of products includes bandpass, longpass/shortpass, rejection bands, dichroic beamsplitters/mirrors, neutral density and laser line. Contact: Ruth Gorham-Houle, Vice President of Business Development, rgorham@omegafilters.com.

OneLight Corp.

#8418

SPIE Corporate Member

1755 W Broadway Ave Ste 314, Vancouver, BC, Canada, V6J 4S5
604/731-7496; fax 604/731-6948
sales@onelightcorp.com; www.onelightcorp.com

Ophir-Spiricon, Inc.

#8011

SPIE Corporate Member

60 W 1000 N, Logan, UT, 84321
435/753-3729; fax 435/753-5231
sales@ophir-spiricon.com; www.ophir-spiricon.com

New Product: Ophir-Spiricon announces the NEW L50 (300)A-IPL to measure Intense Pulsed Light device output.

Ophir-Spiricon Inc. supplies the Medical and Research and Development industries with award winning laser power, energy and profile measurement instruments. Stop by to see how we can help. Contact: Kevin Kirkham, Inside Sales Engineer, Kevin.Kirkham@ophir-spiricon.com; Burt Mooney, Sales Engineer, burt.mooney@ophir-spiricon.com.

Optek Systems Inc.

#8338

111 Smith Hines Rd , Greenville, SC, 29607
978/448-1454; fax 864/272-2630
osi@opteksystems.com; www.opteksystems.com

New Product: Laser scribing and machining systems for solar cell manufacturing.

Precision laser materials processing. Sub-contract services, process development and fully automated laser micromachining systems. Integrated part handling and inspection. Applicable to fiber optics, opto-electronics, micro-electronics, semiconductor, biophotonics, drug-discovery, medical device and solar cell. Laser machining of most materials. OpTek features a fiber optic service center in North America. Outsource your development through to high volume stripping, cleaving and lensing. Contact: Andrew Webb, Head of Business Development.

Optical Research Associates

#8615



3280 E Foothill Blvd Ste 300, Pasadena, CA, 91107
626/795-9101; fax 626/795-9102
info@opticalres.com; www.opticalres.com

New Product: The LightTools® SolidWorks® Link Module Delivers Optimized Illumination Solutions.

Optical Research Associates will exhibit two optical design software products. LightTools® provides virtual prototyping, simulation, optimization and photorealistic renderings of illumination systems. CODE V® has state-of-the-art capabilities for lens optimization, analysis, tolerancing, beam propagation and coupling efficiency. Engineering services will also be exhibited. Contact: Stuart David, Director of Sales; James McGuire, Director of Optical Engineering Services, engr@opticalres.com.

Optimum Technologies, Inc.

#8339

68 West St, Southbridge, MA, 01550
508/765-8100
tpellicano@optimum-tech.com; www.optimum-tech.com

OXXIUS

#8238

4 Rue de Broglie, Lannion, France, 22300
33 2 96 48 70 28; fax 33 2 96 48 21 90
sales@oxxius.com; www.oxxius.com

New Product: Market leading power levels, single-frequency DPSS lasers at 473, 532, 561 nm.

Oxxius manufactures ultra compact, extremely stable Diode Pumped Solid-State and Diode Laser modules in the visible and ultraviolet wavelength range (DPSS from 20 to 300 mW at 561, 532, 473 nm and diode modules from 7 to 100 mW at 488, 445, 405 and 375nm). Patented AMR technology assures stable, noise-free single frequency operation, enabling superior performance in biomedical, analytical, interferometric or sensing applications. Contact: Nicolas Feat, Product Line Manager, nfeat@oxxius.com; Willy Brochard, Sales Engineer, wbrochard@oxxius.com.

OZ Optics Ltd.

#8000



West Carleton Industrial Park, 219 Westbrook Rd, Carp, ON, Canada, K0A 1L0
613/831-0981; fax 613/836-5089
sales@ozoptics.com; www.ozoptics.com

New Product: Fiber Optic Shutters and Sleeve Thru Adaptors with Safety Interlock, Sensors.

High Power Isolator/Patchcord, Shutter/SleeveThru Adaptor Safety Interlock, ER Meter, PM Patchcord/Connector/Splitter, Polarization Rotator/Controller/Analyzer, Laser Diode Source, Polarizing Splitter/Combiner, Laser to Fiber Delivery System, Laser/Photo Diode to Fiber Coupler, Faraday Mirror/Rotator, Circulators, RGB Combiner, Vacuum Feedthrough, V Groove, Tapered Fiber, Polarizer, PM/SM/MM Fused Fiber Coupler, Optical Delay Line/Tap/Power Monitor, Hermetically Sealable Patchcord, Fixed/Tunable Filter, Sensor. Contact: Omur Sezerman, President and Chief Executive Officer.

Paradigm Lasers, Inc.

#8438



3718 S Union Ct, Spokane Valley, WA, 99206
509/232-2040; fax 509/232-1947
sales@paradigmlasers.com; www.paradigmlasers.com

New Product: The o-TOOL optical multimeter simplifies alignment, locates beam, displays polarization and profile.

Designer/Manufacturer of diode-pumped solid-state laser solutions, from pump modules and electronics to fully integrated systems incorporating patented radial diode array technology. Modular designs with scalable power and high brightness certain to meet your laser requirements. Additional products include the o-TOOL, an optical multimeter with attachments to simplify alignment, locate invisible beams, display polarization and display beam profile. Contact: Tim Irwin, President, timi@paradigmlasers.com; Judy Irwin, Vice President, judi@paradigmlasers.com.

Pavilion Integration Corp.

#8425



2380 Qume Dr Ste F, San Jose, CA, 95131
408/453-8801; fax 408/453-8802
sales@pavilionintegration.com; www.pavilionintegration.com

PIC manufactures CW solid-state lasers and laser modules for OEM instrumentation applications. Our products cover the wavelength range from UV to IR and are available as free space and fiber delivered models. Our products feature a small and efficient package to enable a compact and stable instrument design. The lasers exhibit very good stability under all conditions and when modulated. By combining multiple lasers into one laser module we deliver photons the way our customers need them. Contact: Thomas Kraft, thomas.kraft@pavilionintegration.com.

◆◆◆◆
◆ COFFEE/DESSERT BREAK SPONSOR

Photometrics, A Division of Roper Scientific, Inc.

#8141

5794 W Las Positas Blvd, Pleasanton, CA, 94588
925/463-0200; fax 925/463-0204
info@photomet.com; www.photomet.com

New Product: QuantEM:512SC delivers the lowest read noise available for an EMCCD camera.

Photometrics is the world's premier designer and manufacturer of high-performance CCD and EMCCD cameras for the life sciences. Tens of thousands of biological researchers rely on state-of-the-art Photometrics imaging instrumentation, such as our popular CoolSNAP, Cascade, and QuantEM cameras, to meet their most demanding application requirements. We also offer OEM-friendly programs! Contact: Dan Erwin, Regional Sales Manager, derwin@magworldwide.com; Mic Chaudoir, Regional Sales Manager, mchaudoir@magworldwide.com.

Photon Engineering, LLC

#8140



440 S Williams Blvd Ste 106, Tucson, AZ, 85711
520/733-9557; fax 520/733-9609
richp@photonengr.com; www.photonengr.com

New Product: FRED Optimum's built-in hybrid optimizer creates unparalleled designs while reducing prototype time.

Photon Engineering, LLC is a consulting and software development firm based in Tucson, Arizona. Photon Engineering sells FRED, the premier proven optical engineering software to solve today's biomedical engineering problems. FRED is ideal for simulating optical systems with special emphasis on bulk scatter, ghosting, stray light and biomedical illumination analysis. FRED uses a 3D virtual prototyping CAD environment to model virtually any type of biomedical optical system. Contact: Carolyn Johnson, Sales Manager, sales@photonengr.com.

Photonics Media

#8542

Laurin Publishing, Berkshire Common, 2 South St, Pittsfield, MA, 01201-6109

413/499-0514; fax 413/442-3180

photonics@laurin.com; www.photonics.com

Photonics Media is Laurin Publishing Company's international suite of media and as such the pulse of the industry. More than 50 years as the leading publications. In print with the Photonics Directory, Photonics Spectra, Biophotonics International, EuroPhotonics and Photonics Showcase magazines and online at Photonics.com. Contact: Ron Sherwood, North American and Asian Sales Manager, photonics@laurin.com; Charles Troy, Senior Editor, editorial@laurin.com.

PI (Physik Instrumente) LP

#8627



16 Albert St, Auburn, MA, 01501

508/832-3456; fax 508/832-0506

info@pi-usa.us; www.pi-usa.us

PicoQuant Photonics North America, Inc. #8433

61 Union St, Westfield, MA, 01085

413/562-6161; fax 413/562-6167

info@picoquant-usa.com; www.picoquant-usa.com

Product lines include Pulsed Diode Lasers, Time-Correlated Single Photon Counting (TCSPC) electronics and detectors, fluorescence lifetime spectrometers, time-resolved fluorescence microscopes and upgrade kits for Laser Scanning Microscopes. Applications include Single Molecule Spectroscopy, Fluorescence Lifetime Imaging (FLIM), Fluorescence Resonance Energy Transfer (FRET), Fluorescence Correlation Spectroscopy (FCS), Optical tomography and Quantum Key Distribution. Contact: Alain Bourdon, Vice President, alain.bourdon@picoquant-usa.com.

Piezosystem Jena, Inc.

#8239



54 Hopedale St, Hopedale, MA, 01747

508/634-6688; fax 508/634-6868

usa@piezोजना.com; www.piezोजना.com

New Product: New dynamic nanopositioning stage nanoSX 800 CAP unparalleled capabilities with 800 μ m.

Piezosystem jena manufactures ultra-high precision translation devices with options for sub-nanometer resolution and high speed kHz scanning applications. Complete modular and standalone electronics. Open and closed loop control systems. High precision variable slit apertures. Microscope objective focusing stages. We also manufacture multimode fiber optic switches for spectrographic studies. Piezosystem Jena is the exclusive US representative for SIOS interferometric equipment. Contact: Peter Viglas, Sales Engineer, pviglas@piezोजना.com; Jim Litynski, President, usa@piezोजना.com.

Point Source

#8448



Mitchell Point, Ensign Way, Hamble Hampshire, United Kingdom, SO31 4RF

44 2380 744500; fax 44 2380 744501

sales@point-source.com; www.point-source.com

New Product: iFLEX-Viper fiber coupled multi-laser engine with software control for 'Out-of-the-box' performance.

Point Source design and manufacture high performance laser and fiber-optic delivery systems for fluorescence applications in Light Microscopy, Flow Cytometry and DNA Sequencing. Products include single unit and fiber-coupled laser modules up to fully integrated and turn-key multi-laser solutions. Contact: Fiona Evans, Field Sales Engineer - North America, sales@point-source.com; Scott Kelsall, Technical Support Engineer, sales@point-source.com.

PolarOnyx, Inc.

#8335



470 Lakeside Dr Ste F, Sunnyvale, CA, 94085

408/245-9588; fax 408/245-9587

jianliu@polaronyx.com; www.polaronyx.com

New Product: 1) Low cost MHz high energy ultrashort fiber laser, and 2) Arbitrary pulse shape pulsed fiber laser.

World leading company in high energy/power ultrashort (fs, ps, ns) and super continuum fiber lasers. Our products feature fiber delivery, superior stability and reliability, turn-key and maintenance-free operation. They are excellent for material processing, micromachining, spectroscopy, microscopy, biomedical, optical sensing applications. OEM and instrument version are available. Wavelength ranges from VIS to IR. Contact: Jian Liu, President, jianliu@polaronyx.com; Lih-Mei Yang, Sales Director, lihmeiyang@polaronyx.com.

Polymicro Technologies

#8439



A subsidiary of Molex Incorporated, 18019 N 25th Ave, Phoenix, AZ, 85023-1200

602/375-4100; fax 602/375-4110

polymicrosales@molex.com; www.polymicro.com

Manufactures multimode, step-index fused silica optical fibers with polyimide, acrylate, silicone and custom buffers; solarization-resistant optical fibers; IR hollow silica waveguides; broad spectrum fibers; fiber optic cables and assemblies; high strength, high temperature flexible fused silica capillaries; square capillaries; light guiding capillaries; custom precision silica, quartz rod and tubing pieces; custom shaped rod and tubing; multilumen tubing; telecom ferrules and sleeves. Contact: Polymicro Sales Department.

Power Technology, Inc.

#8523



PO Box 191117, Little Rock, AR, 72219-1117

501/407-0712; fax 501/407-0036

sales@powertechnology.com; www.powertechnology.com

Princeton Instruments

#8633



3660 Quakerbridge Rd, Trenton, NJ, 08619-1208
609/587-9797; fax 609/587-1970
moreinfo@piacton.com; www.piacton.com

With 30+ years of providing flexible and efficient solutions, Princeton Instruments is the proven choice for high-performance CCD cameras, spectroscopy systems and optical coatings for research and industrial applications. Acton Series spectrographs provide limitless flexibility and performance in numerous applications. CCD cameras feature the PIXIS, with a variety of sensors for imaging and spectroscopic measurements, thermo-electric cooling and lifetime vacuum guarantee for the CCD chamber. Contact: Jack Mills, United States Sales Manager, jmills@princetoninstruments.com; Antoinette O'Grady, European Sales Manager, aogrady@princetoninstruments.com.

QPC Lasers, Inc.

#8124

15632 Roxford St, Sylmar, CA, 91342
818/986-0000; fax 818/833-1568
info@qplasers.com; www.qplasers.com

New Product: BrightLase® Ultra™ modules up to 120W at wavelengths 1200-1900nm for surgical and cosmetic applications.

QPC Lasers, Inc. is a world leader in the commercialization of a new generation of high brightness high power semiconductor lasers for industrial, defense, medical and consumer markets. Founded in 2000, QPC is vertically integrated from epitaxy through packaging and performs all critical fabrication processes at its facility in Sylmar, California. Contact: Laurent Vaissie, Director of Marketing and Sales, lvaissie@qplasers.com.

Quantum BioMedical, Inc.

#8241

112 Orbison St, Barneveld, WI, 53507
608/924-3000; fax 608/924-3007
rschumacher@quantumdev.com; www.q-bmi.com

New Product: The WARP 10® is a high-intensity, portable LED device which alleviates chronic pain.

Quantum Devices was incorporated in 1989 as a manufacturer of Optoelectronic devices. Our corporate precept is "Improving the Quality of Life Through The Power in Light". Products include Silicon Photodiodes, Optical Encoders and Light Emitting Diodes for commercial, industrial and medical applications. HEALS® (High Emissivity Aluminiferous Luminescent Substrate) technology invented as the light source for PDT and Photobiomodulation, is one of our greatest achievements we share with Dr. Whelan. Contact: Robin Schumacher, Sales/Marketing; QDI Sales, Sales, qdisales@quantumdev.com.

Quantum Northwest, Inc.

#8520

22910 E Appleway Ave Ste 4, Liberty Lake, WA, 99224
509/624-9290; fax 509/624-9488
quantum@qnw.com; www.qnw.com

New Product: qpod®, a Peltier temperature-controlled sample compartment for fiber optic spectroscopy.

Quantum Northwest manufactures temperature-controlled, single and multiple cell cuvette holders for a wide variety of applications. All cuvette holders operate using the Peltier principle and provide magnetic stirring under each cuvette. The qpod® may be used for fiber optic spectroscopy. The FLASH 300 may be used for laser spectroscopy. Many other designs are available for use in nearly any spectrometer for UV/Vis, fluorescence, CD and other spectroscopies. Contact: Kristin Davis, Executive Assistant, quantum@qnw.com; Enoch W. Small, Ph.D., President, quantum@qnw.com.

Reynard Corp.

#8622



1020 Calle Sombra, San Clemente, CA, 92673-6227
949/366-8866; fax 949/498-9528
sales@reynardcorp.com; www.reynardcorp.com

Reynard Corp supplies custom/stock optical components and thin film coatings 0.2um to 25um (UV-far IR) to demanding specifications for medical, military, aerospace, telecom applications. In-house services: opto and mech fabrication and component sub-assembly. Our expertise with gradient filters, beam splitters and florescent coatings enables us to stay on the leading edge of technological advancements through research partnerships, commercial development programs and internal research and development. Contact: Beth Kinchyk, Sales Manager, beth@reynardcorp.com.

Gifts

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SCANLAB America, Inc.

#8143



2020 Calamos Ct Ste 250, Naperville, IL, 60563
630/799-1553; fax 630/799-1551
info@scanlab-america.com; www.scanlab-america.com

New Product: galvanometer dynAXIS XS II, iDRIVE technology, RTC 5 with PC 104+ bus.

Manufactures high performance galvanometer scanners and galvanometer-based scanning systems for deflection and positioning of laser beams in up to three dimensions. Offers solutions for industry, science, medicine and biomedical applications and is an OEM supplier of complete units and subassemblies. The product range includes high end galvanometer scanners, digital and analog driver technology, control electronics and custom subassemblies for 1D, 2D and 3D scanning applications. Contact: Dale Sabo, Vice President, d.sabo@scanlab-america.com; Andreas Engelmayer, Technical Sales, a.engelmayer@scanlab.de.

Semrock, Inc.

#8628



3625 Buffalo Rd Ste 6, Rochester, NY, 14624
585/594-7000; fax 585/594-3898
filters@semrock.com; www.semrock.com

New Product: New notch filters: OD 6 laser-line blocking and high transmission from UV - 1600 nm.

Semrock's manufactures hard-coated optical filters that set the standard for biomedical and analytical instrumentation. These include the acclaimed BrightLine™ fluorescence filters, high-performance filters for Raman spectroscopy and unique laser system optics. Semrock's innovative products are built on the latest in optical coating technology. Founded in September 2000, Semrock is based in Rochester, New York and has offices across the country. Visit Semrock at www.semrock.com.

SensL

#8319



Lee House Riverview Business Park, Bessboro Rd, Blackrock
Cork, Ireland
353 21 435 0442; fax 353 21 435 0447
info@sensl.com; www.sensl.com

New Product: The HRMTime: Portable USB 27ps Timing module now upgraded to include external clock input.

SensL provides low light sensing solutions to the market. We are leaders in the development of Silicon Photomultipliers and our Photon Counting and Timing detectors are complementary to this breakthrough technology. SensL products are customizable and flexible to best suit customer requirements in a variety of applications including: Radiation Detection, Nuclear Medicine, Analytical Instruments, High Resolution Timing, POC/POU Biodiagnostics, Engineering Services, Inspection and Telecoms. Contact: Sales at SensL, Sales Department, Anna Szunomar, International Sales Executive, aszunomar@sensl.com.

Sensors Unlimited, Inc., part of Goodrich Corporation

#8732



3490 US Rte 1, Bldg 12, Princeton, NJ, 08540-5914
609/520-0610; fax 609/520-0638
sui_info@goodrich.com; www.sensorsinc.com

New Product: High Speed, High Resolution InGaAs-NIR Line Scan Camera-Ideal for SD-OCT and Machine Vision apps.

Sensors Unlimited, Inc., part of Goodrich Corporation (www.sensorsinc.com) is a manufacturer of near-infrared (NIR) and shortwave infrared (SWIR) Cameras (available fully packaged or as OEM imaging modules), Linear Arrays, High-Speed Detectors and III-V 4-in. Wafer Foundry Services. Sensors' imaging products are indium gallium arsenide (InGaAs)-based, feature easy integration, use standard glass optics and require no cooling. Contact: Bob Struthers, Director, Sales and Marketing, Robert.Struthers@goodrich.com; Karen Jeffers, Marketing Communications Specialist, Karen.Jeffers@goodrich.com.



GENERAL REFRESHMENT SPONSOR



Silicon Lightwave Technology, Inc.

#8419

16 Technology Dr Ste 168, Irvine, CA, 92618
949/753-0421; fax 949/753-8033
paul@slwti.com; www.slwti.com

New Product: High Power Fiber-Coupled LED's Laser Combiners Raman Fluorescence Delivery/Pickup Probes Focuser.

U.S. Design and Manufacturing of Advanced Fiber Collimators/Focusers, Laser Combiners, High Power LED's and Lasers, Photonic Crystal Fibers (PCF), Hollow Core, Mid-IR Fibers, High Temperature, UV Fibers, Doubled-Clad Fibers, Polarization Maintaining Fibers Assemblies, Fiber Arrays, Fiber Bundles, Harsh Environment Assemblies, Waveguide Polishing/Pigtailing, Splitters, Coatings, Fiber Feedthroughs, Metallized Fiber, Vacuum Fiber Optic, Custom Photonics and Packaging. Contact: Paul Trinh, President, paul@slwti.com; Vivian Trinh, Office Administrator, vivian@slwti.com.

Snake Creek Lasers, LLC

#8126

61 Railroad Ave, Hallstead, PA, 18822
570/879-4992; fax 570/879-0912
info@snakecreeklasers.com; www.snakecreeklasers.com

New Product: MicroGreen™ CC module with Automatic Power Control, 532nm, 5mW.

Provides diode pumped solid-state lasers and laser modules to industrial and government organizations for numerous applications. Also conducts contract solid-state laser research and development in the areas of high-power cryogenic solid-state lasers, alexandrite lasers, near- and mid-infrared lasers, eye-safe lasers, ultrafast lasers and in laser and optical materials. Contact: Sten Tornegard, Marketing Manager, stornegard@snakecreeklasers.com.

Specim Spectral Imaging Ltd.

#8416



Teknologiantie 18 A, Oulu, Finland, 90570
358 10 4244400; fax 358 8 551 4496
info@specim.fi; www.specim.fi

SPECIM Spectral Imaging Ltd. is a world-leading provider of high performance hyperspectral imaging systems and components for ground and airborne applications in UV, VNIR, SWIR and thermal spectral ranges. We provide solutions to the most demanding applications in laboratory, field and remote sensing. Contact: Teija Pakanen, Key Account Coordinator, teija.pakanen@specim.fi; Jouni Jussila, Product Manager, jouni.jussila@specim.fi.

Stanford Computer Optics, Inc.

#8004

SPIE Corporate Member

780 Cragmont Ave, Berkeley, CA, 94708
510/527-3516; fax 510/558-9582
info@stanfordcomputeroptics.com; www.stanfordcomputeroptics.com

New Product: XXRapidFrame multiple framing system, gating time 0.2ns-DC, 100.000.000.000fps, USB.

Analog or digital intensified CCD cameras. High-speed, ultra-fast gated (0.2ns), intensified cameras with nanoLux sensitivity and high rep rate (200kHz continuous, 3.3MHz or 300ns burst). Video imaging spectroscopy software for complex data acquisition, time-resolved spectroscopy and pixel-by-pixel image analysis using SCO 4Picos/4QuikE/XXRapidFrame. Sensitivity of 1count/1photoelectron/pixel w/0.2ns gate time. MCP and diode image intensifiers and low-light cameras. Contact: Erika Schlueter, General Manager; Paul Hoess, President.

Stanford Photonics, Inc.

#8329

1032 Elwell Ct Ste 104, Palo Alto, CA, 94303
650/969-5991; fax 650/969-5992
info@stanfordphotonics.com; www.stanfordphotonics.com

Stanford Photonics, Inc. designs and manufactures digital CCD and Image Intensified (ICCD) cameras for photon-limited life science imaging applications. Mega-pixel resolution and frame rates of 30 to 1000 frames per second are supported by SPI's proprietary image acquisition and RAID based streaming software. SPI also provides advanced platforms/integrated systems for TIRF, single molecule and single photon/ultra low light luciferase and bioluminescence imaging. Contact: Michael Buchin, President, Steve Herlick, Sales Engineer.

StockerYale Inc.

#8327

SPIE Corporate Member

275 Kesmark, Montreal, QC, Canada, H9B 3J1
514/685-1005; fax 514/685-3307
lasers@stockeryale.com; www.lstockeryale.com

New Product: ColdRay: temperature-stabilized laser resulting in excellent wavelength, power and pointing stability.

An independent designer and manufacturer of structured light lasers, LED modules and fluorescent illumination products, as well as phase masks and specialty optical fibers for use in a wide range of markets and industries including machine vision, industrial inspection, telecommunications, military, utilities and medical. Contact: Sales, Sales Engineer, lasers@stockeryale.com.

SUPERLUM

#8635

Unit 2G Eastlink Business Park, Carrigtwohill, Cork, Ireland
353 21 453 3666; fax 353 21 453 30 26
sales@superlum.ie; www.superlumdiodes.com

Founded in 1992 with the introduction of SLD (SLED) module at 820 nm we have continued to develop Broadband Light Sources to offer a whole range of innovative solutions to the worldwide market. Superluminescent Diodes for cutting edge OCT technologies, fiber-optic sensors and other optical tests and measurements applications. Broadband SOA and gain modules with extreme outstanding parameters. Widely tunable/swept laser sources. Contact: Dr. Vladimir R. Shidlovski, Head of Sales and Marketing, support@superlum.ie.

Sutter Instrument Co.

#8246

SPIE Corporate Member

One Digital Dr, Novato, CA, 94949
415/883-0128; fax 408/883-0572
info@sutter.com; www.sutter.com

New Product: The Lambda XL is a broad spectrum, highly stable light source with a bulb life of 15,000 hours.

Sutter Instrument is a leading manufacturer of precision electromechanical instrumentation for scientific research and industry. Products include optical filter wheels, filter switchers, xenon and extended life light sources, the stepper-motor controlled SmartShutter, and motorized X-Y translator. Our P-2000 is the premier NSOM fiber tip puller. With extensive motor control and CNC machining experience, we are able to design and deliver versatile, robust optical products at affordable prices. Contact: Jack Belgum, Ph.D., Senior Vice President, Research and Development, jack@sutter.com; Alex Cooper, Director, Sales and Marketing, alex@sutter.com.

Swamp Optics, LLC

#8415

6300 Powers Ferry Rd Ste 600-345, Atlanta, GA, 30339
404/547-9267; fax 866/855-4518
linda.trebino@swampoptics.com; www.swampoptics.com

Swamp Optics offers compact, convenient devices for completely measuring ultrashort laser pulses in real time. Awards include R&D100 and Circle of Excellence. We also offer custom devices for nearly every pulse-measurement problem, and we recently introduced a compact BOA-pulse compressor automatically free of distortions and very inexpensive.

tec5USA, Inc.



80 Skyline Dr, Plainview, NY, 11803
516/653-2000; fax 516/939-0555
info@tec5USA.com; www.tec5USA.com

New Product: Fast and reliable fiber-optic switches for single-mode and multimode fibers.

High-quality products for spectroscopy, light sources, light guides, fiber-optic switches and probes, spectrometer modules, operating electronics. (Multi-channel) spectrometer systems for multiple applications in lab or process, e.g. concentration, filter transmission, color, thin film thickness. Optical instrumentation as remote control biomass detection systems. Various soft-ware support. Custom designed components and systems. Contact: Gert Noll, General Manager, gert.noll@tec5usa.com; Dileep Mathew, Technical Support Engineer, dileep.mathew@tec5usa.com.

Texas Instruments DLP

6550 Chase Oaks Blvd, Plano, TX, 75023-2308
214/567-7684
www.dmddiscovery.com

New Product: DLP® DISCOVERY™ 4000-DLP developer kit with fast switching, high resolution and handles UV/VIS light.

DLP® Products, a division of Texas Instruments, creates world-class digital technology that allows electronics manufacturers, scientists and engineers to innovate. DLP® technology enables development in light-steering applications like digital cinema, home theater, optical networking and DNA synthesis. TI is committed to making great solutions that solve customers' problems so they can invent new electronics to make the world smarter, healthier, safer and more fun. Visit www.dlpdiscovery.com.

Thorlabs, Inc.



435 Rt 206, Newton, NJ, 07860
973/300-3000; fax 973/300-3600
sales@thorlabs.com; www.thorlabs.com

New Product: Adaptive Optic Toolkit for wavefront compensation includes Wavefront Sensor and MEMS deformable mirror.

Thorlabs designs, develops, and manufactures building blocks for the photonics industry including opto-mechanics, motion control, nano-positioning, alignment, optical components, laser diodes, tunable lasers and vibration isolation systems. In addition to core photonics building blocks, we provide system level solutions including complete OCT and imaging systems, like confocal and adaptive scanning microscopes. Contact: Ying Zhao, Sales, Yzhao@thorlabs.com; Tim Villeneuve, Sales, tvilleneuve@thorlabs.com.



METER BOARD SPONSOR

Time-Bandwidth Products, Inc.



61 Union St, Westfield, MA, 01085
413/564-0610; fax 413/564-0611
alain.bourdon@tbwp.com; www.tbwp.com

Time-Bandwidth Products manufactures passively mode-locked tunable and fixed pico and femtosecond DPSS lasers using our patented SESAM® technology. Wavelengths from 262nm to 1550nm are available at different rep rates and power levels reaching up to 50W to match your application in research or for industrial applications. Contact: Alain Bourdon, Vice President of Sales and Marketing, alain.bourdon@tbwp.com.

#8426



METER BOARD SPONSOR

Toptica Photonics, Inc.



1286 Blossom Dr Ste 1, Victor, NY, 14564
585/657-6663; fax 877/277-9897
sales@toptica-usa.com; www.toptica.com

New Product: World's first 488nm diode laser Ultimate Diode Laser -DL pro Industrial OEM Ultrafast Fiber Laser.

TOPTICA is the world leader in diode laser and femto-fiber technology for industrial and scientific markets offering the widest range of single mode tunable light from 205 to 3000 nm spectral region. Our FemtoFiber product spectrum covers a wavelength spectrum between 480 and 2100 nm including visible and infrared spectrum. Contact: Mark Tolbert, Director of OEM, sales@toptica-usa.com; Michael Holmes, Director of Scientific Sales, sales@toptica-usa.com.

#8433

#8119

Toray Precision Co., Ltd.

1-1-40 Ohe, Ohtsu-shi, Japan, 520-2141
81 77 544 8801; fax 81 77 545 8824
t-watanabe@tpc-jp.co.jp; www.tpc-jp.co.jp

New Product: We can make 2 micron hole in diameter.

Toray Precision responds to customer needs by creating our own unique micro-machining technology based on numerous state-of-the-art machining technologies, like ultra-micro discharge machining equipment. And based on the experience and technology we have developed through the manufacture of spinnerettes for spinning synthetic fibers, we have produced high quality, precision machined parts and supplied these to a wide range of industrial fields, such as aviation, medical device. Contact: Tomohiro Ishida, Assistant Manager, t.ishida@toray-intl.com; Tamio Watanabe, Director.

#8432

#8427

Translume, Inc.



655 Phoenix Dr, Ann Arbor, MI, 48108
734/528-6371; fax 734/528-6334
ericjacobson@translume.com; www.translume.com

New Product: Standard and custom fused silica chips with microfluidic channels and embedded optical waveguides.

Translume is a leader in femtosecond micromachining of fused silica glass and offers a variety of fabrication and integration services for custom applications. Using proprietary laser writing and etching techniques, Translume creates devices that combine optical waveguides, microfluidic components and glass micromechanical (glass MEMS) elements. Excellent for biomedical applications. Contact: Eric Jacobson, Vice President, ericjacobson@translume.com; Philippe Bado, President, pbado@translume.com.

#8131

#8433

Varian, Inc.



2700 Mitchell Dr, Walnut Creek, CA, 94598
925/640-8567; fax 925/949-8998
www.varianinc.com

Varian, Inc. will be displaying recent advances in UV-Vis NIR through Mid Infrared Spectroscopy products. The Cary 6000i is unmatched in performance, accessories and software for the most demanding researcher. A performance FT-IR with reflectance and transmission accessories will also be on display. Visit with our applications specialist to discuss your measurement needs. Contact: Jim Steensrud, jim.steensrud@varianinc.com.

#8214

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materialstoday The international review magazine for researchers in materials science.

Vixar

15350 25th Ave N Ste 110, Plymouth, MN, 55447
 763/746-8045; fax 763/746-8048
www.vixarinc.com

New Product: Dual wavelength visible/IR VCSEL in a plastic surface mount package.

Vixar offers visible and near IR VCSEL components and subassemblies for medical sensing and diagnostic, industrial sensing, office product and communication applications. Available wavelengths range from 660nm to 850nm. Products include discrete laser components, packaged VCSEL arrays, and multi-chip, multi-wavelength assemblies. Product advantages include low power consumption, narrow wavelength spectrum, narrow beam divergence and very compact packaging options. Contact: Mary Hibbs-Brenner, Chief Executive Officer, mhibbsbrenner@vixarinc.com; Klein Johnson, Chief Technology Officer, kjohnson@vixarinc.com.

Vytran LLC

1400 Campus Dr W, Morganville, NJ, 07751
 732/972-2880; fax 732/972-6229
info@vytran.com; www.vytran.com

#8446

XenICs

SPIE Corporate Member

Ambachtenlaan 44, Leuven, Belgium, 3001
 32 161 38 99 00; fax 32 161 38 99 01
sales@xenics.com; www.xenics.com

New Product: XenICs' "Cheetah" is world's fastest InGaAs focal-plane-array camera.

XenICs is the leading developer of innovative infrared detection solutions for a wide range of applications. XenICs designs, manufactures and sells infrared detectors and cameras, both line scan and 2-D, covering the infrared wavelength ranges from 0.4 to 14 micrometers. In addition, XenICs delivers custom products according to the agreed specification and planning. Contact: Marketing and Sales Department.

#8231

Z-LASER Optoelektronik GmbH

SPIE Corporate Member

Merzhauser Str 134, Freiburg, Germany, 79100
 49 761 29644 44; fax 49 761 29644 55
info@z-laser.de; www.z-laser.com

New Product: Precise, temperature-stabilized, high power ZQ-Laser in various wavelengths.

Founded in 1985, Z-LASER produces laser projection systems, which can be used as positioning aid for many types of applications in all kinds of industries. The laser-generated lines, points or crosses serve as markings with which you can exactly align and position the workpieces which are to be processed. Since 1994, Z-LASER holds an ISO 9001 certificate and fulfils the regular quality audits by important industrial purchasers in order to guarantee the high-quality standards of "Made in Germany". Contact: info@z-laser.de.

#8328

#8343

BiOS Product Index

Astronomy

Andor Technology Plc
Asahi Spectra USA Inc.
Chroma Technology Corp
MPB Communications Inc.
Photon Engineering, LLC
Polymicro Technologies
Stanford Computer Optics, Inc.

Cameras and CCD Components

Andor Technology Plc
Chromodynamics
Edmund Optics
Hamamatsu Corp.
Marlow Industries, Inc.
Ophir-Spiricon, Inc.
Photometrics, A Division of Roper Scientific, Inc.
Princeton Instruments
Sensors Unlimited, Inc., part of Goodrich Corporation
Stanford Computer Optics, Inc.
Stanford Photonics, Inc.
Thorlabs, Inc.
XenICs

Chemical & Biological Sensing

BaySpec, Inc.
Chromodynamics
DiCon Fiberoptics, Inc.
Headwall Photonics
High Tech Photonics
Innovative Photonic Solutions
JT Ingram Sales and Marketing
Kohoku Kogyo Co., Ltd.
Light Age, Inc.
Marlow Industries, Inc.
MPB Communications Inc.
NovaWave Technologies
Polymicro Technologies
QPC Lasers, Inc.
Quantum Northwest, Inc.
Semrock, Inc.
SensL
Silicon Lightwave Technology, Inc.
Stanford Computer Optics, Inc.
Vixar
XenICs

Clinical, Chemical and Biological Instrumentation

B&W Tek, Inc.
BaySpec, Inc.
Bioptigen Inc.
Boston Electronics Corp.
Chromodynamics
DiCon Fiberoptics, Inc.
Fianium Inc.
Lockheed Martin Aculight
Marlow Industries, Inc.

Michelson Diagnostics Ltd.
Polymicro Technologies
Quantum Northwest, Inc.
Semrock, Inc.
Sutter Instrument Co.

Communications

InPhenix Inc.
Kohoku Kogyo Co., Ltd.
MPB Communications Inc.
PolarOnyx, Inc.
Vixar

Displays

Optical Research Associates
Photon Engineering, LLC
QPC Lasers, Inc.
Texas Instruments DLP

Distributor or Reseller

Frankfurt Laser Co.

Electron-Beam Lithography

JENOPTIK Laser, Optik, Systeme GmbH - Business Unit Microoptics

Electronic Imaging Components, Equipment, Systems

Cambridge Technology, Inc.
Fujikura Ltd.
Michelson Diagnostics Ltd.
Specim Spectral Imaging Ltd.
Stanford Computer Optics, Inc.
StockerYale Inc.
Texas Instruments DLP
Toray Precision Co., Ltd.



Electronics, Signal Analysis Equipment

Becker & Hickl GmbH
Boston Electronics Corp.
Paradigm Lasers, Inc.
PicoQuant Photonics North America, Inc.
SensL
tec5USA, Inc.
Time-Bandwidth Products, Inc.
Toray Precision Co., Ltd.

EUV Lithography

Optical Research Associates

Fiber Optic Components, Equipment, Systems

AdValue Photonics
Asahi Spectra USA Inc.
Avo Photonics, Inc.
BaySpec, Inc.
Calmar Optcom, Inc.
CeramOptec Industries, Inc.
DenseLight Semiconductors Pte Ltd.
DiCon Fiberoptics, Inc.
Fiberguide Industries, Inc.
Fujikura Ltd.
High Tech Photonics
Innolume GmbH
IRphotonics
JENOPTIK Laser, Optik, Systeme GmbH - Business Unit Microoptics
JT Ingram Sales and Marketing
Kohoku Kogyo Co., Ltd.
Lockheed Martin Aculight
Micro Laser Systems, Inc.
MPB Communications Inc.
Multiwave Photonics
Novacam Technologies Inc.
NovaWave Technologies
Optek Systems Inc.
OZ Optics Ltd.
Point Source
PolarOnyx, Inc.
Polymicro Technologies
Quantum Northwest, Inc.
Silicon Lightwave Technology, Inc.
tec5USA, Inc.
Vixar



Fianium Inc.
Hamamatsu Corp.
InPhenix Inc.
Lumencor, Inc.
Mad City Labs, Inc.
Novacam Technologies Inc.
Photometrics, A Division of Roper Scientific, Inc.
SensL
Sensors Unlimited, Inc., part of Goodrich Corporation
Specim Spectral Imaging Ltd.
Stanford Computer Optics, Inc.
Stanford Photonics, Inc.
Sutter Instrument Co.
Texas Instruments DLP
Thorlabs, Inc.
XenICs

Illumination Engineering

Asahi Spectra USA Inc.
Breault Research Organization
DiCon Fiberoptics, Inc.
Fiberguide Industries, Inc.
Innovative Photonic Solutions
Lumencor, Inc.
Optical Research Associates
QPC Lasers, Inc.

Infrared Sources, Detectors, Systems

AdValue Photonics
Andor Technology Plc
Bioptigen Inc.
Boston Electronics Corp.
Calmar Optcom, Inc.
EXALOS AG
Frankfurt Laser Co.
High Tech Photonics
id Quantique SA
Innovative Photonic Solutions
JT Ingram Sales and Marketing
Kyosemi Opto America Corp.
NovaWave Technologies
Paradigm Lasers, Inc.
PicoQuant Photonics North America, Inc.

Finished Optics, Filters, & Coatings, Optical Fabrication Equipment

Andover Corp.
B&W Tek, Inc.
Barr Associates Inc.
Edmund Optics
Fresnel Technologies Inc.
Newport Corp.
Omega Optical, Inc.
OZ Optics Ltd.
Princeton Instruments
Reynard Corp.
Semrock, Inc.
Toray Precision Co., Ltd.

High Speed Imaging and Sensing

Andor Technology Plc
Chromodynamics
Elforlight Ltd.

QPC Lasers, Inc.
 Reynard Corp.
 Sensors Unlimited, Inc., part of
 Goodrich Corporation
 StockerYale Inc.
 SUPERLUM
 Time-Bandwidth Products, Inc.
 Toptica Photonics, Inc.
 XenICs

Ion-Beam Lithography

Photon Engineering, LLC

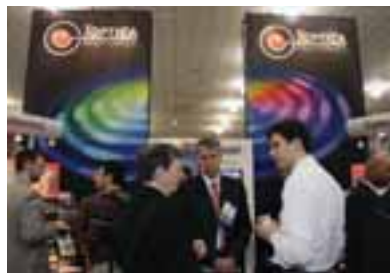
Lasers and Other Light Sources, Laser Accessories, Laser Systems

4AD Enterprises, Inc.
 AdValue Photonics
 AdvR, Inc.
 Amplitude Laser
 Avo Photonics, Inc.
 Axcel Photonics Inc.
 B&W Tek, Inc.
 Becker & Hickl GmbH
 Boston Electronics Corp.
 Calmar Optcom, Inc.
 Cambridge Technology, Inc.
 CeramOptec Industries, Inc.
 Coherent Inc.
 Dayoptics, Inc.
 DenseLight Semiconductors
 Pte Ltd.
 Elforlight Ltd.
 EXALOS AG
 FEMTOLASERS, Inc.
 Fianium Inc.
 Fiberguide Industries, Inc.
 Frankfurt Laser Co.
 Hellma USA, Inc.
 High Q Laser (US), Inc.
 IMRA America, Inc.
 Innolume GmbH
 Innovative Photonic Solutions
 JENOPTIK Laserdiode GmbH
 Kyosemi Opto America Corp.
 Laser Diode, Inc.
 Laservision USA
 Light Age, Inc.
 Lockheed Martin Aculight
 Lumencor, Inc.
 Micro Laser Systems, Inc.
 Multiwave Photonics
 Newport Corp.
 Ophir-Spiricon, Inc.
 Optek Systems Inc.
 OXXIUS
 OZ Optics Ltd.
 Paradigm Lasers, Inc.
 Pavilion Integration Corp.

PicoQuant Photonics North
 America, Inc.
 Point Source
 PolarOnyx, Inc.
 QPC Lasers, Inc.
 Quantum BioMedical, Inc.
 Reynard Corp.
 SCANLAB America, Inc.
 Semrock, Inc.
 Snake Creek Lasers, LLC
 StockerYale Inc.
 SUPERLUM
 Sutter Instrument Co.
 Time-Bandwidth Products, Inc.
 Toptica Photonics, Inc.
 Vixar
 Z-LASER Optoelektronik GmbH

Life Sciences

Amplitude Laser
 Andor Technology Plc
 Asahi Spectra USA Inc.
 CeramOptec Industries, Inc.
 Chroma Technology Corp
 Chromodynamics
 Elforlight Ltd.
 Fianium Inc.
 Fibertech Optica
 Headwall Photonics
 Light Age, Inc.
 LINOS Photonics, Inc.



Lumencor, Inc.
 Mad City Labs, Inc.
 Michelson Diagnostics Ltd.
 Multiwave Photonics
 NOIR LaserShield
 Novacam Technologies Inc.
 OXXIUS
 Photometrics, A Division of Roper
 Scientific, Inc.
 PicoQuant Photonics North
 America, Inc.
 Point Source
 Quantum Northwest, Inc.
 Time-Bandwidth Products, Inc.
 Toptica Photonics, Inc.

Metrology, Inspection and Process Control

Amplitude Laser
 Calmar Optcom, Inc.
 Elforlight Ltd.
 Fianium Inc.
 Fibertech Optica
 Headwall Photonics
 Mad City Labs, Inc.
 Michelson Diagnostics Ltd.
 Novacam Technologies Inc.
 NovaWave Technologies
 Ophir-Spiricon, Inc.
 OXXIUS
 Piezosystem Jena, Inc.
 Specim Spectral Imaging Ltd.
 tec5USA, Inc.
 Toptica Photonics, Inc.
 XenICs



Reynard Corp.
 SCANLAB America, Inc.
 Silicon Lightwave Technology, Inc.
 Stanford Photonics, Inc.
 StockerYale Inc.
 Sutter Instrument Co.
 tec5USA, Inc.
 Texas Instruments DLP
 Vixar
 Z-LASER Optoelektronik GmbH

Nanotechnology

Amplitude Laser
 Elforlight Ltd.
 Mad City Labs, Inc.
 Piezosystem Jena, Inc.

Optical Components

AdValue Photonics
 Andover Corp.
 Asahi Spectra USA Inc.
 Avo Photonics, Inc.
 Barr Associates Inc.
 BaySpec, Inc.
 Cambridge Technology, Inc.
 Chroma Technology Corp
 Dayoptics, Inc.
 DenseLight Semiconductors Pte
 Ltd.
 DiCon Fiberoptics, Inc.
 Edmund Optics
 EXALOS AG
 FEMTOLASERS, Inc.
 Fresnel Technologies Inc.
 Fujikura Ltd.
 Hellma USA, Inc.
 InPhenix Inc.
 IRphotonics
 JDSU
 JENOPTIK Laser, Optik, Systeme
 GmbH - Business Unit
 Microoptics
 Kohoku Kogyo Co., Ltd.
 Laser Diode, Inc.
 LINOS Photonics, Inc.
 Lumencor, Inc.
 Marlow Industries, Inc.
 MEMS Optical Inc.
 Micro Laser Systems, Inc.
 Omega Optical, Inc.
 Point Source

Optical Detectors

Becker & Hickl GmbH
 Boston Electronics Corp.
 Dayoptics, Inc.
 Hamamatsu Corp.
 Hellma USA, Inc.
 High Tech Photonics
 id Quantique SA
 JT Ingram Sales and Marketing
 Kyosemi Opto America Corp.
 Laser Diode, Inc.
 Paradigm Lasers, Inc.
 Princeton Instruments
 Quantum BioMedical, Inc.
 SensL
 Sensors Unlimited, Inc., part of
 Goodrich Corporation
 Thorlabs, Inc.

Optical Fibers

AdValue Photonics
 CeramOptec Industries, Inc.
 Fiberguide Industries, Inc.
 Fibertech Optica
 Fujikura Ltd.
 High Tech Photonics
 IRphotonics
 JT Ingram Sales and Marketing
 Kohoku Kogyo Co., Ltd.
 Micro Laser Systems, Inc.
 Optek Systems Inc.
 Point Source



BiOS Product Index



Polymicro Technologies
Silicon Lightwave Technology, Inc.

Optical Materials and Substrates

4AD Enterprises, Inc.
AdvR, Inc.
Andover Corp.
Barr Associates Inc.
Chroma Technology Corp
Dayoptics, Inc.
Fresnel Technologies Inc.
NOIR LaserShield
Silicon Lightwave Technology, Inc.

Optical Test and Measurement Equipment, Interferometer

B&W Tek, Inc.
Breault Research Organization
Calmar Optcom, Inc.
InPhenix Inc.
Laser Diode, Inc.
Light Age, Inc.
Michelson Diagnostics Ltd.
Micro Laser Systems, Inc.
Novacam Technologies Inc.
Ophir-Spiricon, Inc.
OXXIUS
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Paradigm Lasers, Inc.
Piezosystem Jena, Inc.
PolarOnyx, Inc.
Princeton Instruments
tec5USA, Inc.
Thorlabs, Inc.
Toptica Photonics, Inc.

Optical/Laser Microlithography

JENOPTIK Laser, Optik, Systeme GmbH - Business Unit Microoptics
Light Age, Inc.
MEMS Optical Inc.
Optek Systems Inc.
Optical Research Associates
OXXIUS
Translume, Inc.

Optics Manufacturing

Andover Corp.
Barr Associates Inc.
Breault Research Organization
Chroma Technology Corp
Dayoptics, Inc.
Edmund Optics
FEMTOLASERS, Inc.
Fresnel Technologies Inc.
Headwall Photonics



Hellma USA, Inc.
IRphotonics
JDSU
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MEMS Optical Inc.
Omega Optical, Inc.
Reynard Corp.
Stanford Photonics, Inc.

Photonics Equipment Manufacturer

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BaySpec, Inc.
Fiberguide Industries, Inc.
Fujikura Ltd.
Hamamatsu Corp.
Innovative Photonic Solutions
IRphotonics
MPB Communications Inc.
Multiwave Photonics
Newport Corp.
Princeton Instruments
Quantum BioMedical, Inc.
Quantum Northwest, Inc.
Specim Spectral Imaging Ltd.
Texas Instruments DLP
Toray Precision Co., Ltd.

Positioning Equipment

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Edmund Optics
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Newport Corp.
Piezosystem Jena, Inc.
SCANLAB America, Inc.
StockerYale Inc.
Sutter Instrument Co.
Thorlabs, Inc.
Z-LASER Optoelektronik GmbH

Sensor & Sensor Systems

Hamamatsu Corp.
Headwall Photonics
Hellma USA, Inc.
InPhenix Inc.
Kyosemi Opto America Corp.
Multiwave Photonics
NovaWave Technologies
OZ Optics Ltd.
Quantum BioMedical, Inc.
SensL
Sensors Unlimited, Inc., part of Goodrich Corporation
Specim Spectral Imaging Ltd.



Services and Publications (Including Professional Societies)

American Society for Laser Medicine & Surgery, Inc.
Avo Photonics, Inc.
Breault Research Organization
IOP Publishing Ltd.
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Photonics Media

Software

Breault Research Organization
Lambda Research Corp.
Optical Research Associates
Photometrics, A Division of Roper Scientific, Inc.
Photon Engineering, LLC
Stanford Photonics, Inc.

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Optek Systems Inc.

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US Patents:
7,218,655
7,245,371
7,245,369
7,145,651



MiniRamII



SPIE
Photonics West

Conferences and Courses: 23 – 28 January 2010

BiOS Exhibition: 23 – 24 January 2010

Photonics West Exhibition: 26 – 28 January 2010

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LASE—Lasers and Applications •
MOEMS-MEMS—Micro & Nanofabrication •

A photograph of the Golden Gate Bridge in San Francisco, taken at sunset. The bridge's towers and suspension cables are silhouetted against a sky filled with soft, orange and yellow clouds. The water below reflects the warm light of the setting sun. The bridge spans across the water, with the second tower visible in the distance.

SPIE Photonics West 2010 in San Francisco

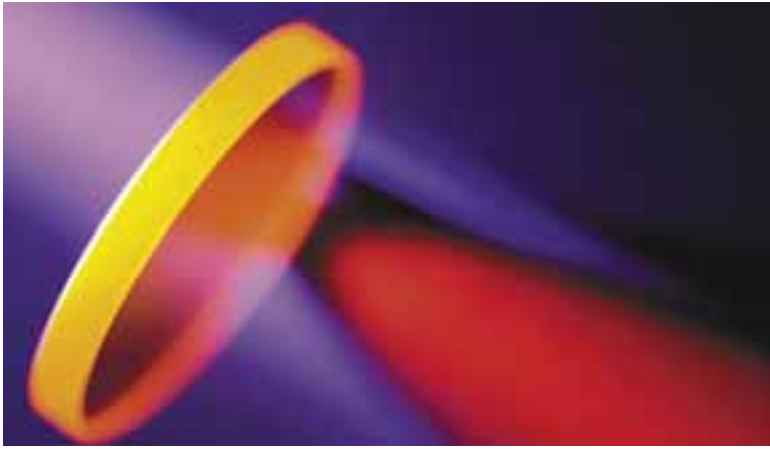
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SPIE Photonics West

Exhibition Dates: 27-29 January 2009
Conference Dates: 24-29 January 2009

San Jose Convention Center
San Jose, California, USA

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How to use this directory

SPIE Photonics West exhibitors are listed in alphabetical order with details about products or services each is exhibiting. Companies are additionally cross-indexed by technology areas in the Product Index on pages 239–253, to allow you to quickly shop for products.

Booth numbers are provided in the Exhibitor Directory, and may be cross-referenced with the maps on pp. 76–79. The address of each exhibitor is also listed, making this Exhibition Guide an excellent reference tool.

Exhibitor List as of 8 December 2008

PLEASE NOTE:

The Photonics West Exhibitor Listing begins on page 86.

The BiOS Weekend Exhibitor Listing begins on page 43.

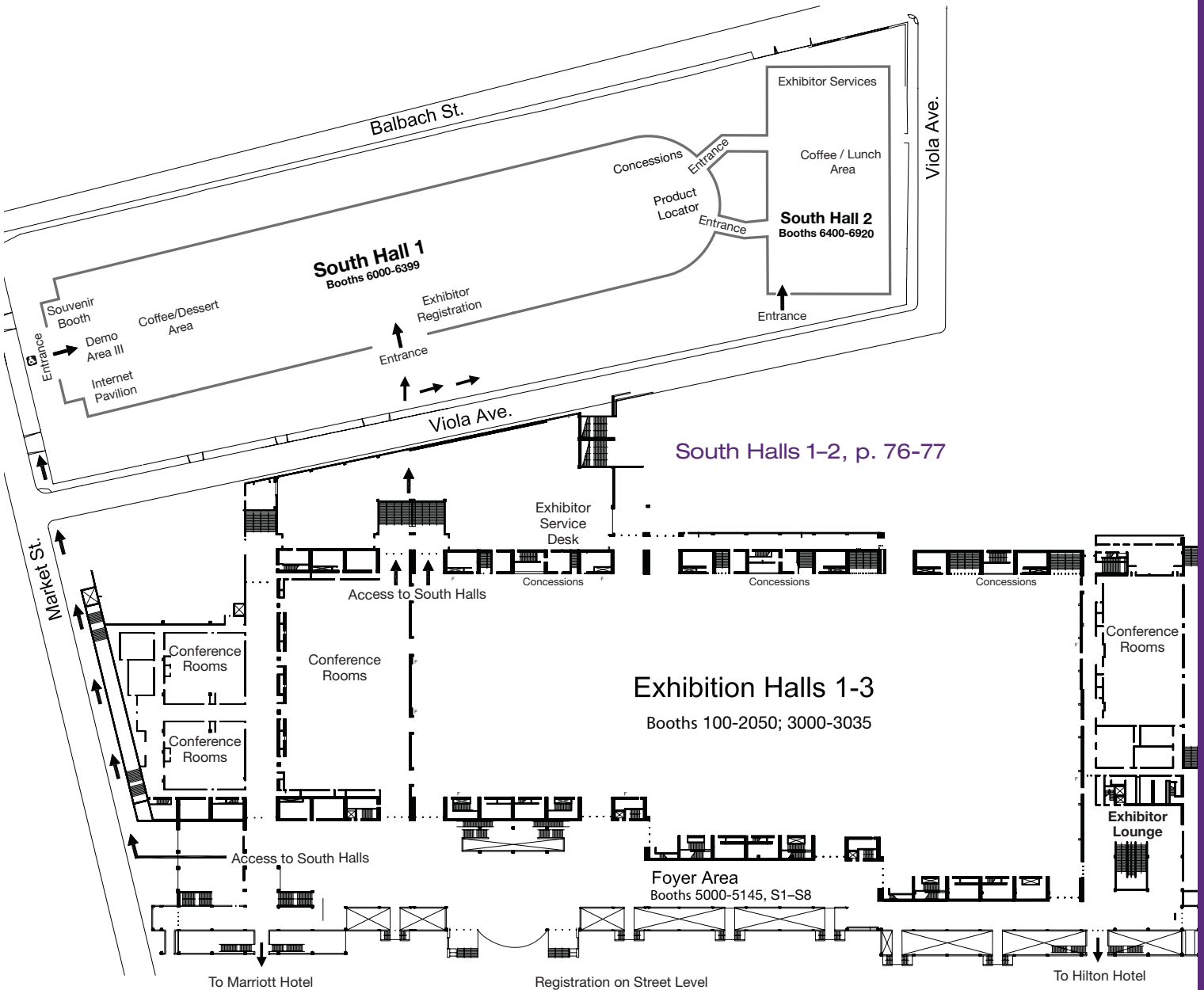
2009 Exhibitor Listing

Photonics West Exhibition Hours

San Jose Convention Center, Exhibition Halls 1-3, Exhibition Foyer, and South Halls 1-2

- Tuesday 27 January10:00 am to 5:00 pm
- Wednesday 28 January.10:00 am to 5:00 pm
- Thursday 29 January.10:00 am to 4:00 pm

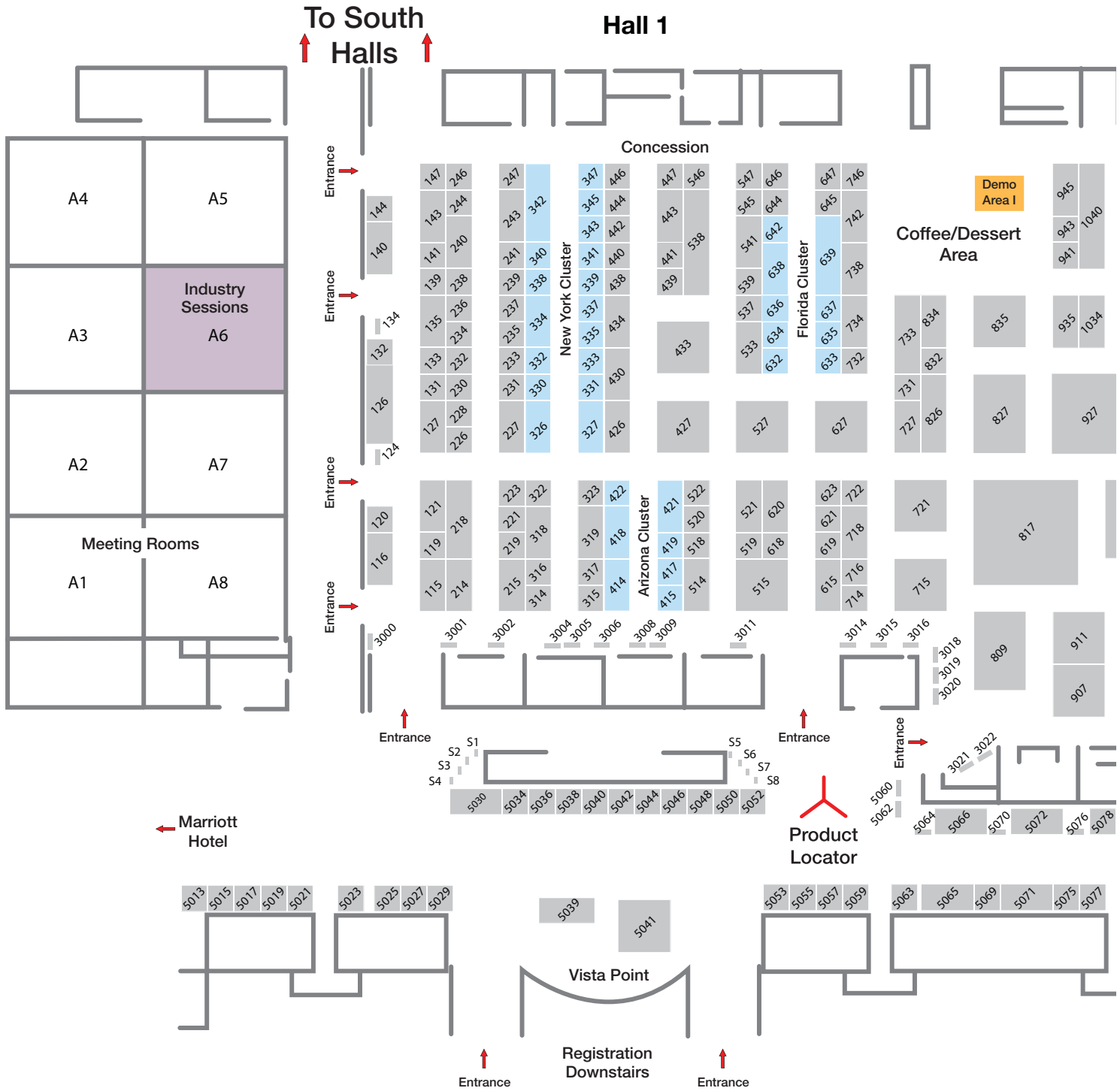
San Jose Convention Center and South Halls 1 and 2



Access to the South Halls for Guests with Disabilities

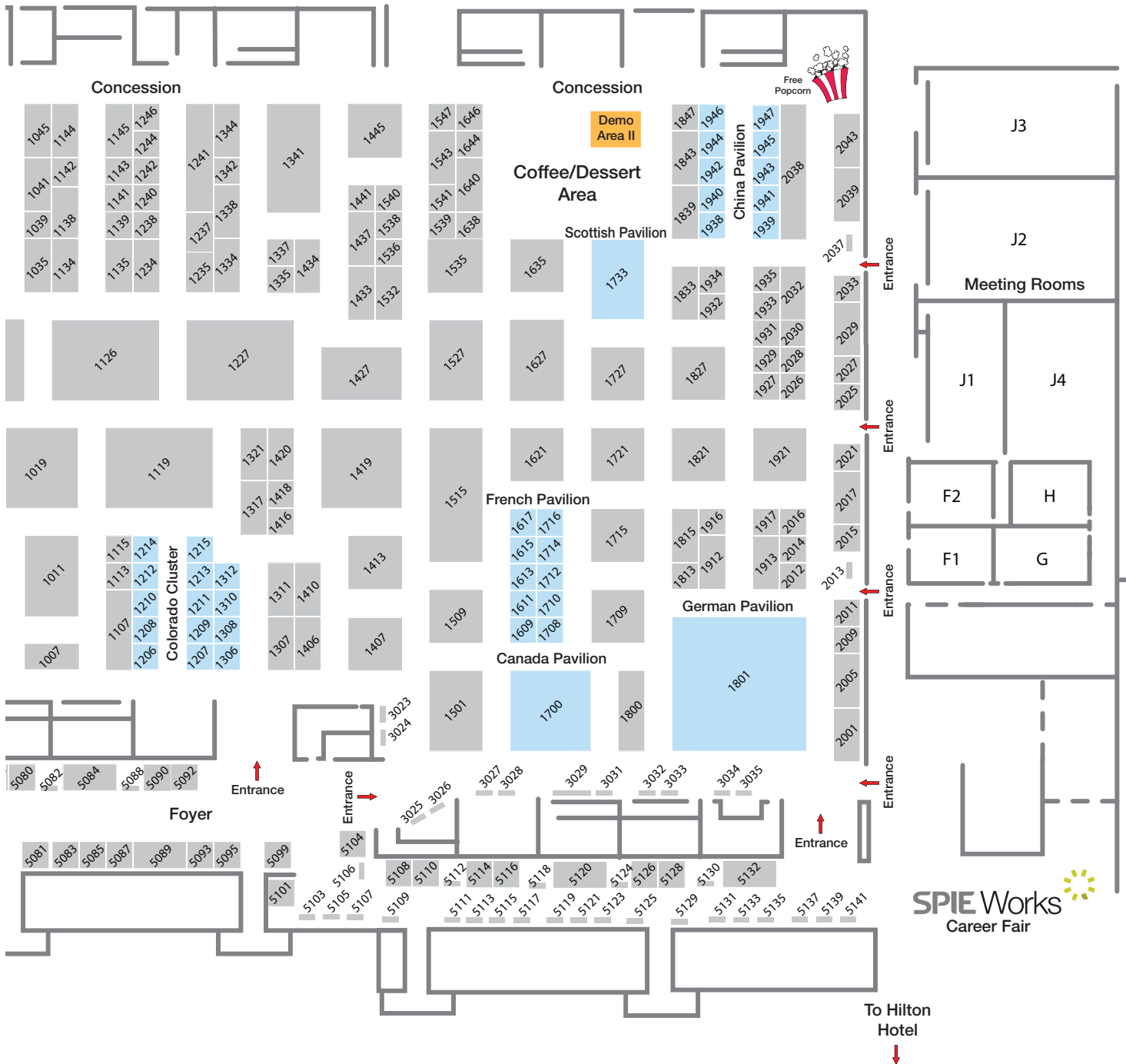
Use the elevators to reach the first floor of the Convention Center. Proceed to the South Market Street exit. Turn right and proceed half a block through the traffic light. The entrance to South Hall is on the right hand side.

San Jose Convention Center



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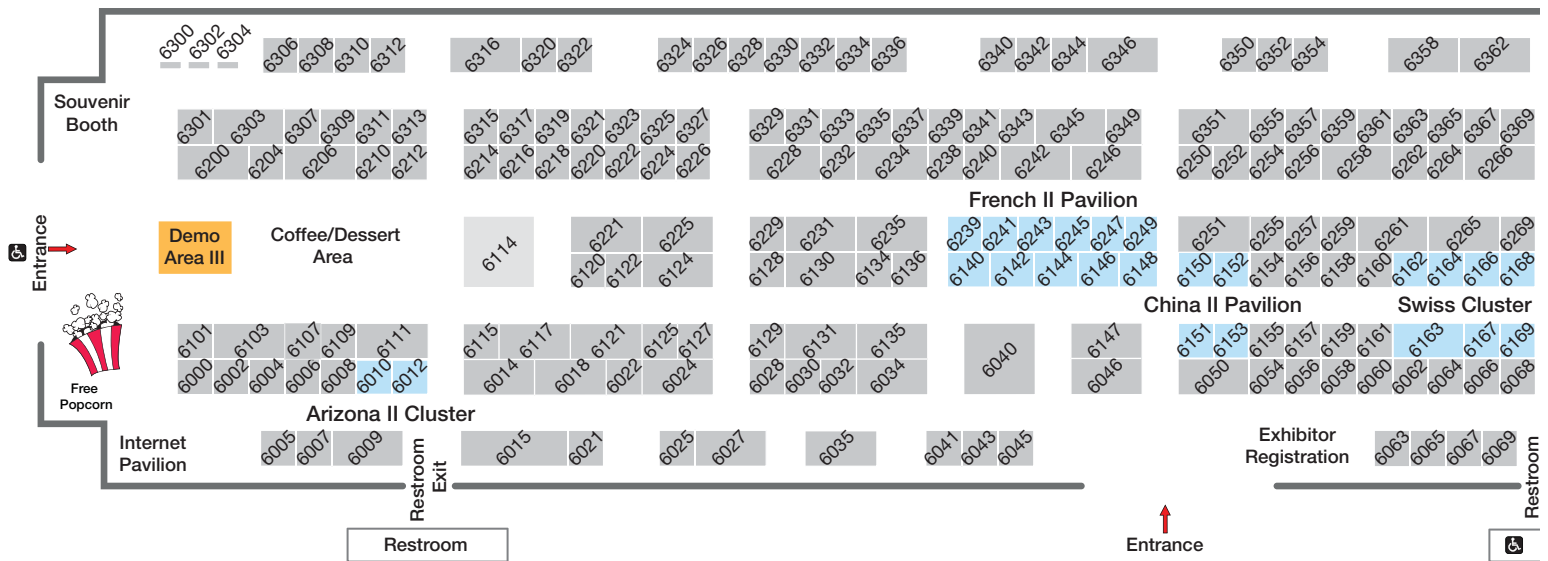


Photonics West Exhibition



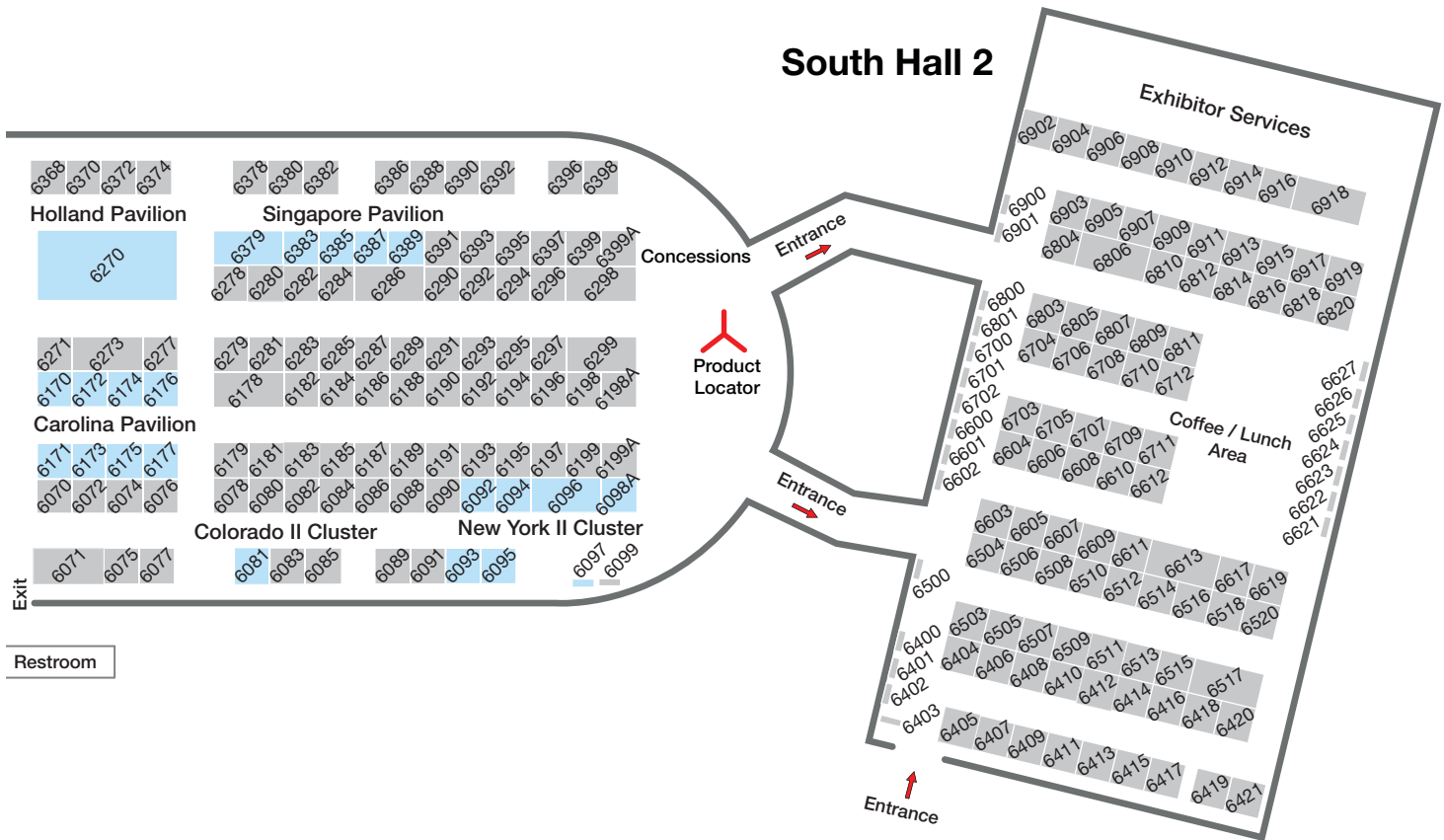
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agtec@sbcglobal.net; www.agtec.org

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302/894-1151; fax 302/894-9021
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Active Optics - Night N (opt) Ltd.

Sudostroitel'naya Str 18 Bld 5, Moscow, Russia, 115407
7 499 618 8171; fax 7 499 618 8171
adopt@nightn.ru; www.activeoptics.ru

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#338

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info@atfilms.com; www.atfilms.com

New Product: Ultra-high laser damage threshold coatings, including 2.94 microns coatings.

Advanced Thin Films specializes in high quality custom optics and ion beam sputtered optical coatings. We supply edge filters, mirrors and crystal coatings for OEM applications. Our products provide superb optical performance in the wavelength range of 200 nm to 3.5 microns. ATFilms' IBS coatings excel in difficult spectral and environmental applications. We are owned and managed by a team of engineers with 75 years of experience in IBS coatings. Contact: Ramin Lalezari, President, ramin@atfilms.com; Rob Patterson, Vice President of Technical Sales, rob@atfilms.com.

◆◆◆◆◆ AdvR, Inc. #5095

2310 University Way Bldg 1, Bozeman, MT, 59715
406/522-0388; fax 406/522-0387
sales@advr-inc.com; www.adv-r-inc.com

◆◆◆◆◆ Aerotech, Inc. #1307

SPIE Corporate Member

101 Zeta Dr, Pittsburgh, PA, 15238-2897
412/963-7470; fax 412/963-7459
sales@aerotech.com; www.aerotech.com

New Product: Ensemble motion controller for 1-10 axes is compatible with EPICS software tools and applications.

Aerotech manufactures automated alignment, positioning, and motion control systems and components. Our products include optical mounts and gimbals; a complete line of single- and multi-axis photonic/fiber optic direct-drive nanopositioners; gantry systems; goniometers; air-bearing and mechanical-bearing linear and rotary stages; lift stages; a full line of single- and multi-axis motion controllers; PWM and linear drives; linear and rotary brushless motors; and custom systems.

Plan to Attend

FREE Exhibitor Product Demonstrations

Refer to pages 8-16 for complete time, schedules, and locations.

AF Optical Co.

#1547

45268 Industrial Dr, Fremont, CA, 94538
510/623-9716; fax 510/623-9726
sales@afoptical.com; www.afoptical.com

New Product: New Optoform X-Y and rotary stages, and accessories New AFM alignment tool.

Manufacturer of Optoform, the world's most advanced Optical Erector Set to build self holding optomechanical assemblies, with over 1200 components, and well illustrated user's manual. Manufacturer of tools for optical and AFM microscopy. Product design, and development facility for wafer, and magnetic media inspection. Contact: Ali Afshari, CEO, sales@afoptical.com.



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AFL Telecommunications

#6345

SPIE Corporate Member

PO Box 3127, Spartanburg, SC, 29304
864/433-0333; fax 864/433-5560
sales@afitele.com; www.afitele.com

AFL Telecommunications is a global leader providing fiber optic products, equipment and engineering services to various markets. AFL serves a diverse mix of industry segments that includes service providers, OEMs, government and defense, oil and gas, biomedical, as well as premise networking and utility. AFL's product line consists of optical connectivity, fusion splicers and test equipment as well as fiber management systems, closures, fiber optic cable and accessories.

Agilent Technologies, Inc.

#645

5301 Stevens Creek Blvd, Santa Clara, CA, 95051-7204
408/553-2114; fax 408/553-2372
www.agilent.com

AIM Specialty Materials

#6408

25 Kenney Dr, Cranston, RI, 02920
401/463-5605; fax 401/463-0203
info@aimspecialty.com; www.aimspecialty.com

AIM Specialty Materials offers solders for Photonic Packaging applications such as fiber/ferrule soldering, die attach, TEC soldering, fiber positioning package sealing and thermal management. Solders are available with melting points ranging from 60°C to 300°C. Indium and Gold/Tin solders are available as wire, ribbon, paste and preforms in many sizes and purities. AIM's technical staff is available to assist you with custom designed solutions to your sealing issues. Contact: info@aimspecialty.com.

Aistana Inc.

#6304

1549 Brookvale Dr Unit 3, San Jose, CA, 95129
408/329-7911; fax 866/628-8556
www.aistana.com

New Product: High power isolators from 1W to 20W handling power typically for fiber laser application.

Aistana specializes in high precision optical and fiber-optic components. From prototype and specialty quantities to large volume OEM production, our products are manufactured with strict attention to your specifications and delivery requirements. Nono-PM and PM Isolator, Coupler, WDM, Circulator; High Power Isolator (Up to 20W); Hybrid Components; Windows/Optical Flats/Mirrors: Prisms/Light Pipes; Wedges; Filters/ Beamsplitters; Customer Optics.

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CERAMIC CORPORATION

35 Howard Street
Phillipsburg, NJ 08865
Phone: 908-213-7070
Fax: 908-213-7069

Photonics West Exhibitor Directory

AJ Industries LLC

#6287

5729 Fontanosos Way, San Jose, CA, 95138
408/528-3708; fax 408/528-3704
kristen@ajisso.com; www.ajisso.com

Akela Laser Corp.

#6505

2031 US Hwy 130 Ste G, Monmouth Junction, NJ, 08852
732/305-7105
info@akelalaser.com; www.akelalaser.com

High power laser diode manufacturer offering single emitters, multi-element modules, bars and stacks in any configuration from 635nm to 2 microns. Also provides opto-mechanical sub-assemblies that incorporate optics, drive electronics and cooling. Contact: Bob Sellers, CEO, bob.sellers@akelalaser.com.

Alfalight

#443



1832 Wright St, Madison, WI, 53704
608/240-4800; fax 608/240-4801
sales@alfalight.com; www.alfalight.com

Alfalight, Inc., based in Madison, Wisconsin, is a market-proven developer and manufacturer of highly efficient and reliable high-power diode lasers for industrial, defense, and telecommunications markets. The company's advanced Aluminum-Free Active region (ALFA) diode lasers and Wavelength Stabilization Technology (WST) enable industry-leading efficiency, reliability, power and brightness.

ALIO Industries

#1213



11919 W I-70 Frontage Rd N, Unit 119,
Wheat Ridge, CO, 80033
303/339-7500; fax 303/339-7501
sales@alioindustries.com; www.alioindustries.com

New Product: ALIO Industries introduces a new line of metrology systems.

ALIO, is an innovator in nano technology motion systems. ALIO's designs exceed current standards of precision product designs for automation technology. Holding two patents for the Parallel 6 Axis Hexapod and the Parallel 3 Axis Tripod, ALIO has set the pace for nano precision design. Contact: Dan Crews, V.P. and Sales Manager, danc@alioindustries.com; Bill Hennessey, CEO, sales@alioindustries.com.

AllMotion

#6199

5501 Del Oro Ct, San Jose, CA, 95124
408/460-1345; fax 408/358-4781
support@allmotion.com; www.allmotion.com

New Product: The IntelliNCH allows users to create miniature motion control solutions with no programming.

AllMotion Inc. develops and manufactures miniature high-performance stepper and servo drives for the medical, scientific, optical and general automation markets. Our mission is to create superior, ultra-compact motion control solutions that reduce costs and readily integrate into OEM instrumentation designs across a wide range of industries. Research and Development efforts are centered on core competencies of small form factor components that deliver precise positioning control and ease of use. Contact: Jamie Pohlman, Operations Manager, jamiep@allmotion.com; David Goodin, President, supportallmotion.com.

ALLVIA, Inc.

#5119



657 N Pastoria Ave, Sunnyvale, CA, 94085
408/212-3200; fax 408/720-3334
info@allvia.com; www.allvia.com

ALLVIA Inc. provides Thru-Silicon Via foundry services to MEMS, Photonics and Semiconductor Industries. Thru Silicon Via provides the shortest electrical path between two sides of silicon die, allow miniaturization through 3D stacking and support wafer level packaging (WLP) for RF and MEMS devices. With a full line of in-house processing equipment, ALLVIA offers services for volume production runs for manufacturing TSVs, silicon etching, copper plating, photolithography, CMP, etc. Contact: Nagesh Vodrahalli, Vice President Technology and Manufacturing, nagesh_vk@allvia.com; Chih-Yang Li, Manager, Design and Modeling, cyli@allvia.com.

ALPAO

#6144

460 rue de la Piscine Domaine Universitaire, Saint Martin
d'Hères, France, 38400
33 4 76 63 55 05
frederic.rooms@alpao.fr; www.alpao.fr

New Product: With AOS-0 toolkit, adaptive optics has never been so easy or powerful.

ALPAO specializes in AO products (deformable mirrors to complex systems). Our breakthrough technologies stem from years of R&D focused on highly demanding applications. A unique, patented technology optimizes our deformable mirrors for individual apps (FSO, vision science etc). We recently introduced a highly flexible/open architecture called ALPAO Core Engine. This modular approach to AO is an ideal tool for custom systems and innovative solutions. Contact: Frédéric Rooms, Sales manager, contact@alpao.fr.

Alpes Lasers SA

#733

1-3 Max--Meuron CP 1766, Neuchatel, Switzerland, CH-2000
41 32 729 9510; fax 41 32 721 3619
www.alpelasers.ch

New Product: CW room temp Quantum Cascade Lasers devices now available on special order.

Manufacturer of Quantum Cascade Lasers - tunable infrared lasers in the 4 to 17 micron region thermoelectric cooled, CW or pulsed. Contact: Antoine Muller, CEO, antoine.muller@alpelasers.ch.

Alphion Corp.

#6289



196 Princeton Hightstown Rd Bldg 1A,
Princeton Junctions, NJ, 08550
609/936-9001; fax 609/936-9002
sales@alphion.com; www.alphion.com

New Product: Alphion's new 1060nm SOA targets the OCT imaging market.

Alphion® develops, manufactures, and markets photonic components, subsystems, and GPON systems. Alphion serves the FTTx, medical imaging, test and measurement, fiber optic sensing, and telecommunications markets. The QLight® product family consists of SOA-based technology including extended PON amplifiers, broad-band sources, nanosecond lossless photonic switches, gain elements for tunable lasers, and advanced integrated photonic devices. Contact: Brian Sanders, Sales Manager, soa@alphion.com; Chris Peterson, VP, Marketing, sales@alphion.com.

Alps Electric Co., Ltd.

#6909

910 E Hamilton Ave Ste 500, Campbell, CA, 95008
408/361-6400; fax 408/226-7301
www.alps.com

New Product: Aspherical Lens for communication and RGB laser, Lead free lens, RGB laser module, FTTH module.

Alps Electric is a leading manufactory of electronic devices, supplying some 40,000 different components to around 2,000 customers around the world. Alps is a leading supplier of glass aspherical lens for optical communication. Optical products include: lead free aspherical lens, TO-CAN and micro bare lenses, FTTH module. We plan to expand optical business to other market based on our core optical technologies. Contact: Xiaoguang Ye, Application Engineer, xiaoguang.ye@alps.com; Scott Lands, Sales Director, scott.lands@alps.com.

Altos Photonics, Inc.

#1445



201 S Wallace Ste B2C, Bozeman, MT, 59715
406/581-4662; fax 909/363-8637
sales@altosphotonics.com; www.altosphotonics.com

Altos Photonics offers femtosecond, mode locked and Q-switched lasers and tunable systems for research and industrial customers. Additional products include non-linear crystals (BBO, KTP, ZGP, KYW, KGW, etc), optical mounts, USB-controlled stages and other related products. Altos Photonics sells and services products from EKSPILA, EKSM OPTICS, Light Conversion and Standa. Contact: Lucian Hand, President, Laurie Dewar, Office Administrator, laurie@altosphotonics.com.

American Beryllia, Inc.

#6809

16 First Ave, Haskell, NJ, 07420
973/248-8080; fax 973/248-8012
info@americanberyllia.com; www.americanberyllia.com

American Beryllia Inc. is a leading worldwide manufacturer of Beryllium Oxide ceramic (BeO) Laser Bores, heat sinks, rods, washers, thermocouple tubing, and custom-made substrates for a diverse range of aerospace, defense, electronic and commercial applications. Visit us to discuss your application and thermal management needs. We welcome mass production, small quantities, and R&D projects. Visit our website at www.americanberyllia.com for more information about our company and capabilities. Contact: Getzy Burger, getzy@americanberyllia.com; Dino Nicoletta, dnicoletta@americanberyllia.com.

Ametek HCC Industries

#6814

4232 Temple City Blvd, Rosemead, CA, 91770
626/443-8931
hcc.sales@hccindustries.com; www.hccindustries.com

New Product: High Temperature Co-fired Ceramic packages through the acquisition of General Ceramics, Inc.

Ametek HCC is the leader in high reliability hermetic packaging and inter-connects. Business units: HCC Aegis, Glasseal Products, General Ceramics, Hermetic Seal Corp, Sealtron and Ametek SCP. Products: glass-to-metal sealed and high temperature co-fired ceramic hermetic microelectronic packages for fiber optic, infrared, opto-electronic and other applications; windows and lids; fiber optic connectors for harsh environments. Capabilities: custom design engineering, prototyping, high volume. Contact: George McCormack, Director of Sales, North America, george.mccormack@ametek.com; Rob Winterburn, Manager, Strategic Marketing, rob.winterburn@ametek.com.

AMO WaveFront Sciences, LLC

#623

14820 Central Ave SE, Albuquerque, NM, 87123
505/275-4747; fax 505/275-4749
info@wavefrontsciences.com; www.wavefrontsciences.com

New Product: High speed wavefront metrology with AMO WaveFront Sciences' Smart Sensor.

AMO WaveFront Sciences provides full-service design and manufacturing capabilities for micro-optics and wavefront sensor based instrumentation for lasers, optics, optometry and ophthalmology. The CLAS-2D™ system offers a complete line of products for the analysis of visible, infra-red, continuous and pulsed lasers. CLAS-2D™ also presents advantages to most optical test requirements traditionally addressed by interferometry. Contact: Harry Skolnik, Sales Representative, hskolnik@hotmail.com; Craig Armstead, Product Manager, craig.armstead@amo-inc.com.

Amplification Technologies, Inc.

#6095

1400 Coney Island Ave, Brooklyn, NY, 11230
718/951-8021; fax 718/951-8030
sales@amplificationtechnologies.com;
www.amplificationtechnologies.com



METER BOARD SPONSOR

Amplitude Systems

#527

6 allée du doyen Georges Brus, Pessac, France, 33600
33 5 5646 4060; fax 33 5 5646 0694
info@amplitude-systemes.com; www.amplitude-systemes.com

New Product: Compact, air-cooled, fiber coupled, ultrafast oscillator; High energy ultrafast fiber amplifier.

Amplitude Systemes manufactures advanced diode-pumped ultrafast lasers. Products range from picosecond to femtosecond oscillators and amplifiers based on crystal and/or fiber technology. Main features are: high reliability, compact size and high performance. Scientific and industrial applications include micromachining, multiphoton microscopy, laser ablation... Contact: Vincent Rouffiange, Sales and Marketing Manager, vrouffiange@amplitude-systemes.com; Robert Braunschweig, US Sales Manager, rbraunschweig@amplitude-laser.com.

Amplitude Technologies

#6140

2-4 Rue du bois Chaland, CE 2926 Lisses, Evry Cedex, France, 91029
33 1 69 11 27 90; fax 33 1 64 97 58 17
www.amplitude-technologies.com

New Product: TRIDENT: compact femtosecond amplifier, 10Hz, 100Hz, 1kHz; TITAN: high energy Nd:YAG laser.

Amplitude mission is to produce ultra-intense femtosecond systems with the best performances, from the point of view of pulse duration, temporal contrast and spatial beam quality. Our state-of-the-art performances consist in the shortest pulses (<20fs) with the highest temporal contrast (>10 orders) and the highest energy. Contact: Federico Canova, Sales Manager, fcanova@amplitude-technologies.com.



Free Popcorn

Popcorn carts will be located in the back of Exhibition Hall 3 and South Hall 1 and will be open from 11:00 am to 4:00 pm, Tuesday through Thursday.

Photonics West Exhibitor Directory

Analog Modules, Inc.

#633

126 Baywood Ave, Longwood, FL, 32750
407/339-4355; fax 407/834-3806
www.analogmodules.com

New Product: OEM CW and Pulsed Laser Diode Driver, Model 784.

Founded in 1979, Analog Modules is an ISO 9001 certified company located in Longwood, (Orlando) Florida where 70 full-time employees are involved in design, development and manufacturing. AMI produces a wide range of stand-alone and OEM analog electronic products primarily for the laser and electro-optics industries. These products serve applications in medical, military, scientific and industrial markets. Contact: Kelly Pacy, Vice President Sales, kpacy@analogmodules.com; Bruce Soileau, Product Manager, bsoileau@analogmodules.com.

Anchor Optics

#6262

101 E Gloucester Pike, Barrington, NJ, 08007
856/573-6865; fax 856/546-1965
sales@anchoroptycs.com; www.anchoroptycs.com

Anchor Optics is quickly becoming the preferred supplier of commercial and experimental grade optics. With over 5,000 products and over 5,000,000 in stock ready for immediate delivery, Anchor Optics can provide you with the optics you need when you need them. Anchor Optics is the value-price optics alternative for industry, research and education. Contact: David Henz, Product Line Manager, dhenz@anchoroptycs.com.

Andor Technology Plc

#1709



425 Sullivan Ave Ste 3, South Windsor, CT, 06074
860/290-9211; fax 860/290-9566
info@andor.com; www.andor.com

Andor enables its customers to break new ground by performing light measurements previously considered impossible. With a portfolio spanning high-performance scientific digital CCD, EMCCD and ICCD cameras, spectrographs, and microscopy systems, Andor is a leader in scientific imaging and spectroscopy solutions. Customers include the world's leading academic and research establishments in life and physical sciences. More information about Andor Technology PLC (LSE: AND) is available at www.andor.com. Contact: Gene Marino, Marketing, g.marino@andor.com; Jennifer Drezek, Sales Services Manager, j.drezek@andor.com.

Andover Corp.

#518



4 Commercial Dr, Salem, NH, 03079-2800
603/893-6888; fax 603/893-6508
info@andovercorp.com; www.andovercorp.com

New Product: Mid-IR filters and coatings, stock and custom.

Andover manufactures high-quality optical filters and coatings in the UV to Mid IR range. We specialize in narrowband, image-quality and space-qualified filters. We have over 1000 standard items in stock and can provide custom parts in as little as one week. We are ITAR and ISO 9001:2000 registered. Contact: Phil Clark, Technical Sales, pclark@andovercorp.com, Rob Pursel, Thin Film Engineer, rpursel@andovercorp.com.

Anson Optical Products Co., Ltd.

#3033

Rm 1 9F Cheung Tat Ctr, 18 Cheung Lee St, Chaiwan, Hong Kong
852 27570168; fax 852 27962568
ansonoptical@hkbn.net; www.ansonoptical.com.hk

Anson Optical Products Co Ltd., as one of the trusted name of optics and are specialized in plastic optical components from optics design, prototype making, tooling fabrication, precision molding to assembly. Our experienced work team features states-of-art molding technology and have capability for supplying custom-designed molded diffractive, aspherical, cylindrical, fresnel surfaces components, modules and mirrors.

Anteryon BV

#135



Zwaanstr 2a Bldg RAB, Eindhoven, The Netherlands, NL-5561CA
31 40 25 61 500; fax 31 40 25 61 518
info@anteryon.com; www.anteryon.com

Anteryon provides high tech precision optical components and subassemblies. Able to provide innovative product solutions in the product/market segments, including industrial optics, imaging, display, data communications and telecommunications. A team with manufacturing capabilities in low-scale and high volume create a shared strategy from conception to production. For more information please check the website www.anteryon.com. Contact: Richard van Densen, Sales Manager; Peter Timmerman, Sales Manager, info@anteryon.com.

APE - Angewandte Physik und Elektronik GmbH

#218

Plauener Str 163-165 Haus N, Berlin, Germany, 13053
49 30 98601130; fax 49 30 986 011 333
ape@ape-berlin.de; www.ape-berlin.com

APE GmbH develops and manufactures measurement devices and other accessories for ultrafast laser systems. The company is one of the international market leaders in ultrafast diagnostics and offers precision, quality and service from autocorrelators to wavelength measurement, from acoustooptics to synchronously pumped optical parametric oscillators (OPOs). APE instruments are in use in scientific institutions and research centers all over the world. Contact: Edlef Büttner, Managing Director, edlef_buettner@ape-berlin.de; Jan Popien, Managing Director, jan_popien@ape-berlin.de.

Apogee Instruments, Inc.

#141

1020 Sundown Way Ste 150, Roseville, CA, 95661
916/218-7450; fax 916/218-7451
vsutton@ccd.com; www.ccd.com

New Product: Alta cooled CCD camera system with gigabit ethernet interface and multichannel 16-bit readout.

Apogee Instruments manufactures high performance thermoelectrically cooled CCD imaging systems for a wide range of scientific applications, including fluorescence / bright field microscopy, astronomy, radiometry, spectroscopy, NDT, retinology. Single users to large-scale OEM contracts. Sensors to 4096x4096. Low-cost Ascent Series cameras feature 16-bit digitization with programmable speed and high speed USB2 interface (dual channel to 20 MHz). Pricing and data sheets at http://www.ccd.com. Contact: Gary McAnally, VP Mktg and Sales, mac@ccd.com; Ross Keyashian, OEM Sales Manager, team@ccd.com.



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- Fiber laser pumping
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- Medical systems

Photonics West Exhibitor Directory

Apollo Instruments, Inc.

#133

SPIE Corporate Member

55 Peters Canyon Rd, Irvine, CA, 92606
949/756-3111; fax 949/756-9166
contact@apolloinstruments.com; www.apolloinstruments.com

New Product: FIBER LASER SYSTEM - 200W and M²<1.1; FC LASER DIODE - >1kW, 400um, NA 0.22, Single Wavelength.

Manufactures and supplies high-power, high-brightness fiber-coupled or collimated laser diode systems (up to 5kW) and fiber lasers with superior beam quality for applications such as material processing and laser-pumping. Also specializes in research and development areas including optical system design for industrial and medical applications.

Apollo Optical Systems, Inc.

#6349

SPIE Corporate Member

330 Clay Rd, Rochester, NY, 14623
585/272-6170; fax 585/272-6177
info@apollooptics.com; www.apollooptical.com

Manufacturer of custom precision optical components specializing in Single Point Diamond Turning and injection molded polymer optics in prototype and production volumes. In-house capabilities include SPDT, extensive metrology, injection molding, optical/mechanical design and engineering. AOS specializes in design and manufacturing of diffractive and refractive optics. Contact: Daniel McGarry, President, McGarry@ApolloOptical.com; Claude Tribastone, President of Manufacturing, Tribastone@ApolloOptical.com.

Applied Image Inc.

#322

SPIE Corporate Member

1653 E Main St, Rochester, NY, 14609
585/482-0300; fax 585/288-5989
imaging@appliedimage.com; www.appliedimage.com

"Your Single Source Photonics Solution Provider" dedicated to innovative OPTO-IMAGING Products and Services. Providing custom and "off the shelf" linear scales, test targets, reticles, encoders, image analysis standards, sinusoidal arrays, photo masks, ronchi rulings and other imaged components on various substrate materials for today's complex photonics needs. Now offering Imatest software with Applied targets for analyzing image quality. APPLIED IMAGE, where image concepts become reality.

Applied Laser Engineering Ltd.

#6420

Molesey Business Centre, Central Ave, West Molesey Surrey, United Kingdom, KT8 2QZ
44 20 8941 1101; fax 44 20 8783 1348
sales@appliedlaser.co.uk; www.appliedlaser.co.uk

New Product: Maestro Technology.

Applied Laser Engineering manufactures high resolution, direct laser engraving machinery utilising multiple CO₂ and/or Yag laser beams. Machines range from 0.6m-6m roller length capability and up to 1m diameter. ALE's expertise lies in large format, high resolution, in the round engraving, marking, texturing or surface treatment machinery. Typical applications include printing, embossing, micro machining, coating and security applications. Contact: Kyle Dixon, kyle@appliedlaser.co.uk; Ed Birch, Engineering Director, ed.birch@appliedlaser.co.uk.

Applied Optronics

#147

Div of Candela Corp, 111 Corporate Blvd Bldg J, South Plainsfield, NJ, 07080
908/753-6300; fax 908/753-4041
sales@applied-optronics.com; www.applied-optronics.com

New Product: Wavelengths >2 micron.

Custom manufacturer of high-powered pulsed and CW diode lasers, multi-element diode laser modules, bars and stacked arrays in wavelengths ranging from 635nm to greater than 2 microns. Expertise in system level engineering, electronics, optical modeling and design. Founded in 1991, all manufacturing is done onsite in its South Plainfield, NJ facility. Contact: Ernest Sirkin, GM, ernis.sirkin@applied-optronics.com; Dennis Tishinin, Director of Engineering.

Applied Photon Technology, Inc.

#6359

3346 Arden Rd, Hayward, CA, 94545
510/780-9500; fax 510/780-1798
info@appliedphoton.com; www.appliedphoton.com

Applied Photon Technology is a primary source for the highest quality linear flash and arc lamps for applications in the medical, industrial and specialty markets. Among our customers are the leading manufacturers of laser and electro-optical systems in the markets that we serve. Contact: Barry Smith, V.P. Marketing and Sales, barrysmith@appliedphoton.com; David Collins, Product Manager, dcollins@appliedphoton.com.

Applied Surface Technologies

#5082

SPIE Corporate Member

15 Hawthorne Dr, New Providence, NJ, 07974
908/464-6675
co2clean@co2clean.com; www.co2clean.com

We show precision cleaning solutions using CO₂ Snow - a safe and nondestructive process for removing particles of all sizes, down to 0.03 microns, and hydrocarbon residues. We will demonstrate manual and semi-automated units, for cleaning application in research, development, and manufacturing. The CO₂ Snow Cleaning process cleans metals, ceramics, optics, substrates, vacuum parts, fiber optics, diamond turned optics, disk drives, sensors, analytical samples (AFM), and many other materials. Contact: Robert Sherman, President, roberts@co2clean.com.

APS Optics

#3035

42257 Troyer Ave, Fremont, CA, 94539
510/656-9295; fax 510/353-1109
apsoptics@usa.net; www.apsoptics.com

New Product: Optical components from crystals axicon ophthalmic optics special optical systems design.

Since 1993 we design optical systems and produce high quality optical components for the high tech industry for customers around the world for different applications. Contact: Arkadiy Farberov, Manager of Engineering, apsoptics@usa.net.



Product Locator Kiosk

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ARC Technologies

SPIE Corporate Member

4459 White Bear Pkwy, White Bear Lake, MN, 55110
651/789-9000; fax 651/789-9199
info@arcnano.com; www.arcnano.com

Advanced Research Corp (ARC), www.arcnano.com, offers state-of-the-art high precision manufacturing and development. The company features thin film deposition, photo and etch, MEMs level device fab, flip-chip die bonding, flip-chip tooling (Suss/SET FC150 SiC and Zerodur Glass tooling), hard milling, ceramics, uEDM, Fine Wire EDM, full analytical lab (SEM/FIB/XRF/AFM, etc), nano precision micromachining, lapping, electronics, instrumentation and assembly. ARC's products include aperture strips, X-ray collimators, flip ship tools, and laser diode heat sinks. With more than 36,000 total sq ft and 11,000+ sq ft of clean rooms, ARC has a broad suite of technologies that make ARC your best one stop high tech solution shop.

Archer OpTx, Inc.

SPIE Corporate Member

3402 Enterprise Dr, Rowlett, TX, 75088
972/463-8001; fax 972/463-8311
sales@archeroptx.com; www.archeroptx.com

New Product: 2009 brings MicroAspheres and MicroAsphere arrays, Off-Axis Parabolas, and 3 Long EFL collimators.

Archer OpTx manufactures the highest precision molded glass lenses in the world. The molded glass PerfectLens™ - ultra precision molded glass lenses are from 0.5mm to 55mm - asphere or acylinder - BIG-SMALL-PRECISE - enhanced performance lenses with guaranteed 0.05 waves RMS wavefront error with production typically at 0.02 - 0.03 waves, best in the world, best surface roughness and lens-to-lens uniformity, 24 RoHS compliant low CTE glasses for custom designs. Contact: Kevin Mitchell, Director of Sales, kevin.mitchell@archeroptx.com; Colby Freeman, Inside Sales Manager, colbyfreeman@archeroptx.com.

Arden Photonics Ltd.

SPIE Corporate Member

iBIC Holt Ct S, Aston Science Park, Birmingham, United Kingdom, B7 4EJ
44 121 260 6410; fax 44 121 333 3399
info@ardenphotonics.com; www.ardenphotonics.com

We design, manufacture and sell instruments and components for use with optical fibers, lasers, LEDs and optics. Our main areas of expertise include wavefront sensors for optical and surface metrology; launch condition analyzers and controllers for multimode optical fibers; laser beam profilers including real-time measurement of beam quality factor. Contact: David Robinson, david@ardenphotonics.com.

ARGES GmbH

Werk 4, Wackersdorf, Germany, 92442
49 9431 7984 0; fax 49 9431 7984 300
info@arges.de; www.arges.de

ARGES is a manufacturer for the OEM laser component market. We develop and produce innovative laser scanning systems as well as customer specific OEM subsystems for industry, medicine, science and research. Besides from the component business ARGES also offers services in application and process development, job-shop, consulting, custom design and training for ARGES products. Contact: Juliane Hoels, Sales and Marketing, info@arges.de; Cornelia Oppitz, Sales, info@arges.de.

#6294

Argus International, Ltd.

#6291

108 Whispering Pines Dr Ste 110, Scotts Valley, CA, 95066
831/461-4700; fax 831/461-4701
info@argusinternational.com; www.argusinternational.com

Argus International, Ltd. serves a variety of industries including scientific and educational institutions and various government agencies. We have a wide range of capabilities, such as: cutting, shaping, edging, grinding, and polishing from standard to exotic materials, such as fused silica, barium fluoride, calcium fluoride, magnesium fluoride, germanium, sapphire, lithium fluoride and more. Contact: Brian Morrissey, President, brian@argusinternational.com; Joanna Davidson, Government Procurement, joanna@argusinternational.com.

Argyle International Inc.

#520

254 Wall St, Princeton, NJ, 08540
609/924-9484; fax 609/924-2679
argyleint@aol.com; www.argyloptics.com

New Product: Argyle International is now making Micro-lenses, diameter 1mm to 4mm for custom applications.

Since 1993, Argyle International Inc has been supplying optical components to its customers worldwide. Located in Princeton, New Jersey, Argyle runs its own optics factory in China, combining an American contact point with highest quality and best pricing. We manufacture a full range of lenses, prisms, windows and general optics including coatings for UV, VIS and IR. All work is custom. We specialize in prototypes, but we have full production capabilities. Call or email any time. Contact: Arthur Gillman, President, AGillman@ArgyleOptics.com; Lian Shentu, Vice President, LianShentu@aol.com.

Arroyo Instruments

#6259

373 Front St Ste B, Grover Beach, CA, 93433
805/481-6684; fax 805/481-6628
sales@arroyoinstruments.com; www.arroyoinstruments.com

New Product: Our new 20A LaserSource laser diode driver with optional QCW mode and remote sense.

Arroyo Instruments' is a supplier of leading edge laser diode drivers, temperature controllers, and laser diode fixtures. Our laser drivers offer high stability and low noise performance, currents to 20A, and unique features not found elsewhere, while our temperature controllers feature 0.004°C stability and up to 120W of power. Both products offer a bright VFD display, and RS232 and USB interfaces. We also offer a variety of fixtures for c-mount, butterfly, TO-can, and many others. Contact: Paul Corr, President, pcorr@arroyoinstruments.com.

Asahi Spectra USA Inc.

#6014

SPIE Corporate Member

23505 Crenshaw Blvd Ste 244, Torrance, CA, 90505
310/530-5855; fax 310/530-1739
info@asahi-spectra.com; www.asahi-spectra.com

New Product: UV Filters and Long-Life, High Power Light Source.

A leading designer and manufacture of precise optical filters and analytical instruments, we serve a wide range of markets, including medical diagnostics, environmental monitoring, imaging, semiconductor and aerospace. Our newest innovations include high-performance filters for UV applications and a long life light source. We welcome your OEM inquiries and custom engineering questions. Contact: Takeshi Fujii, Vice President, tfujii@asahi-spectra.com.

Photonics West Exhibitor Directory

ASML Optics



8555 S River Pky, Tempe, AZ, 85284
510/222-2310; fax 510/222-2357
information@asml.com; www.asml.com

ASML Optics is a manufacturer of extreme precision optical components and systems for a broad range of commercial applications, serving customers worldwide. Provides Design-to-Image™ solutions including optical and mechanical design, optical fabrication and coating, assembly and system qualification, and distinct customer benefits with Asphere Advantage™ technology and PerfectWave™ metrology. Contact: Mark Bigelow, VP Sales, mark.bigelow@asml.com; Daniel Bajuk, General Manager, daniel.bajuk@asml.com.

#419

attocube systems AG

Koeniginstr 11a RGB, Munich, Germany, 80539
49 89 28 77 80 90; fax 49 89 28 77 80 919
info@attocube.com; www.attocube.com

New Product: attoFPSensor - Interferometric Sensor: ultra compact, pm resolution over large distances.

attocube systems provides ultra-high precision spatial positioning systems and scanning probe microscopes such as AFM, CFM, SNOM and STM. These systems are particularly suitable for extreme environmental conditions such as cryogenic temperatures, high magnetic fields and UHV environments and have enabled pioneering investigations and developments in science and industry. Contact: Florian Ponnath, Sales Engineer.

#1801

asphericon GmbH

Wildenbruchstr 15, Jena, Germany, 07745
49 3641 675 600; fax 49 3641 675 606
sales@asphericon.com; www.asphericon.com

Asphericon has become an acknowledged specialist for aspheric optics. The company success is based on proprietary technologies for manufacturing high precision aspheres by CNC grinding and polishing. asphericon provides its worldwide customers with high quality aspheres from prototype to large volume quantities. With unique technological capabilities asphericon offers a complete range of custom and off-the-shelf precision aspheres combining the asphericon quality with volume production savings. Contact: Jean-Luc Nogues, Regional Sales Manager USA, jlnogues@agiltek.com; Stefan Klinzing, Sales Manager.

#1801

AudioDev USA, Inc.

5126 Clareton Dr Ste 100, Agoura Hills, CA, 91301
818/540-3100; fax 818/540-3107
sales-us@audiodev.com; www.audiodev.com

New Product: The ETA ARC-AT offers non-contact, non-destructive measurement of coatings on curved surfaces.

AudioDev is a world leader in providing quality assurance solutions. Our Thin Film Metrology division offers a complete package of products and services worldwide, which ensures quality assurance for manufacturers of Precision Optics, Thin Films and Foils, Coatings and applications used in Optical Laboratories. We supply the measurement excellence needed for true quality assurance and cost reductions. Contact: Eric Dilts, President, Hormoz Benjamin, TFM Technician, hormoz.benjamin@audiodev.com.

#6411

AT-Fachverlag GmbH

Saarlandstr 28, Fellbach, Germany, 70734
49 711 952 9510; fax 49 711 952 95199
at@at-fachverlag.de; www.photonik.de

New Product: Photonik international issues are English specials of the German-language magazine Photonik.

Photonik is a German-language trade journal published 7 times a year, covering the high-tech areas of optical technologies (optoelectronics, laser technology, image processing, optical communication, optical metrology, etc.). In this area, Photonik provides the highest circulation in the German-speaking market place. Photonik publishes technical articles, reports on new products and business news. The magazine is targeted at development engineers and industrial users of such products. Contact: Norbert Schoene, Marketing Manager, schoene@at-fachverlag.de; Sylvia Kaschke, Editor, kaschke@at-fachverlag.de.

#6293

Australian Centre for Precision Optics, CSIRO

Bradfield Rd, Lindfield, Sydney, NSW, Australia, 2070
61 2 9413 7620; fax 61 2 9413 7200
khuen.wong@csiro.au; http://www.acpo.csiro.au/

New Product: Roundest objects in the world? Ultrasmooth spheres of silicon to redefine the kilogram.

We specialize in design, fabrication and certification of ultra-high precision optical systems and components. We create custom optics in glass, ceramic, crystal and metal. Our products include: super-polished flats (100th wave p/v, roughness <1Å rms, <500 mm diameter); precision spheres (<40 nm asphericity); ultra-high precision assemblies (retro-reflectors); multi-layer, low-loss dielectric coatings; wide aperture Fabry-Perot narrow-band filters, (etalons, fixed or tunable); precision metrology (surface figure to 100th wave, micro-roughness < 1Å rms).

#6701

Atlas PCF Ltd.

29A Rzhnevskoe shosse, Shebekino Belgorodskaya obl, Russia, 309290
7 47248 31 498; fax 7 47248 22 800
www.atlas-pcf.ru

#6231

Automation Engineering Inc. (AEI)

299 Ballrdvale St Ste 3, Wilmington, MA, 01887
978/658-1000; fax 978/658-1050
sales@aeiboston.com; www.aeiboston.com

New Product: A flexible platform for precision assembly and testing of digital camera modules and sensors.

Automation Engineering Incorporation (AEI) is a leading supplier of high-precision flexible automation systems across the optoelectronics, medical devices, consumer products, aerospace/defense, automotive, and other world-wide markets. AEI provides comprehensive design for manufacturing process development, and pre-production build services in addition to complete turn-key automated manufacturing stations and lines. For more information, visit AEI's website, www.aeiboston.com. Contact: Andre By, Chief Technology Officer, aby@aeiboston.com; Justin Roe, Chief Operating Officer, jroe@aeiboston.com.

#6705

ATP, Applied Thin-Film Products

3439 Edison Way, Fremont, CA, 94538
510/661-4287; fax 510/661-4250
atp@thinfilm.com; www.thinfilm.com

Applied Thin-Film Products (ATP) is a leading ISO Certified thin film manufacturer for a wide range of materials and metallization schemes. Substrates are fabricated from Alumina, ALN, BEO, Fused Silica, Quartz, Ferrite's, and Hi-K Dielectrics. Metallization range from standard Tan/TiW/Au, to Nickel, Palladium and Platinum. Circuit features can include fine pitch conductors, integrated resistor, hollow plated vias, solid filled vias, double-sided patterning and pre-deposited Gold/Tin (AuSn). Contact: Ryan Nguyen, Sales Engineer, rnguyen@thinfilm.com; Franco Pietroforte, Vice President, fpieforte@thinfilm.com.

#6322

Avantes, Inc.



9769 W 119th Dr, Broomfield, CO, 80021
303/410-8668; fax 303/410-8669
info@avantes.com; www.avantes.com

New Product: AvaSpec-IRRAD-EXT, extended irradiance system covering 200-1,700 nm.

Avantes manufactures portable spectrometer systems, light sources, fiberoptic cables and probes, and accessories for UV/VIS/NIR measurement from 200-2,500 nm. Systems include choice of various detector arrays and communication options including USB, USB2, Wireless, and RS232. Avantes welcomes custom engineering questions and OEM inquiries. Avantes has thousands of spectrometers in the field and experienced specialists to help find your Solutions in Spectroscopy®. Contact: Damon Lenski, Sales Manager, damonl@avantes.com; Greg Neece, President, gregn@avantes.com.

Avensys Tech/ITF labs.

400 Blvd Montpellier, Montreal, QC, Canada, H4N 2G7
514/748-4848; fax 514/744-2080
info@avensys.com; www.avensys.com

New Product: High power packaged mirror gratings and combiners with integrated HR gratings.

ITF Labs spearheads the development of ultra-reliable fiber-optic systems including high-power fused components, optical sensors and instrumentation and fiber laser components. Its sister company, Avensys Tech, designs, manufactures, and markets high reliability optical components and modules for the telecom market and high power devices and sub-assemblies for the industrial market. Contact: Christian Lafrance, Director - Sales and Marketing, clafrance@avensys.com; Hélène Stievenard, Internal Sales Representative, hstievenard@avensys.com.

Averna

87 Prince St Ste 140, Montreal, QC, Canada, H3C 2M7
514/842-7577; fax 514/842-7573
contact@averna.com; www.averna.com

New Product: Burn-In, Life Test and Qualification Systems.

Averna is a global test engineering software, solutions and services company. Averna's mission is to accelerate electronic product development and improve quality standards for innovative high-tech manufacturers in electronics, telecommunications, automotive, aerospace and defense, throughout the design lifecycle of their products. Contact: Mathieu Allard, Regional Sales Manager, California, mathieu.allard@averna.com; Jacques Routhier, Vice President Business Development, jacques.routhier@averna.com.

Avo Photonics, Inc.



700 Business Center Dr Ste 125, Horsham, PA, 19044
215/441-0107; fax 215/441-9219
sales@avophotonics.com; www.avophotonics.com

Avo Photonics provides Custom Design and advanced Contract Manufacturing services for photonic customers in the medical, military, aerospace, communications and industrial markets. Avo's Design and Manufacturing Services provide customers with support throughout all stages of the product lifecycle - Concept thru Prototype and into Production. Avo's personnel and equipment are an extension of its customer's business, providing transparent services at the volumes needed. Contact: Neal Stoker, Vice President of Sales and Marketing, nstoker@avophotonics.com; Dr. Joseph Dallas, President and Chief Operating Officer, jdallas@avophotonics.com.

#1308

Axcel Photonics Inc.

45 Bartlett St, Marlborough, MA, 01752
508/481-9200; fax 508/481-9261
sales@axcelphotonics.com; www.axcelphotonics.com

New Product: 808nm 6W/10W HHL pigtail modules, 915nm 10W/12W 90um submounts.

Manufactures single-mode and multi-mode high power diode lasers. Standard and custom products from 780nm to 1070nm with up to 30W output from a single chip. Available as chips, submounts and modules with fiber or window output. Applications include DPSS, medical, printing, spectroscopy, telecom etc. Contact: Tom Yang, Sales and Marketing Director.

Axsys Technologies Imaging Systems



175 Capital Blvd, Rocky Hill, CT, 06067
860/257-0200; fax 860/594-5750
info@axsys.com; www.axsys.com

AXT, Inc.

4281 Technology Dr, Fremont, CA, 94538
510/438-4700; fax 510/353-0668
sales@axt.com; www.axt.com

AXT manufactures compound and single element semiconductor substrates - gallium arsenide (GaAs), indium phosphide (InP) and germanium (Ge). AXT also invests in five joint ventures producing raw materials. Please visit AXT's website, www.AXT.com, for more information. Contact: John Cerilli, Vice President Global Sales and Marketing.

Ayase America, Inc.



3080 Olcott St Ste 210 D, Santa Clara, CA, 95054
408/988-5277; fax 408/988-5278
tjang@ayaseamerica.com; www.ayaseamerica.com/america

New Product: 635, 650, 780, 808 and 850nm TO-can laser diodes Collimation, line generation and OEM laser modules.

Ayase has 3 locations worldwide, in Japan, USA and Germany. Since 1999, we have been providing customers with high-quality laser diodes, laser modules, optics, motors and OEM optical sub-assemblies. We serve a wide range of customers in industries such as barcode scanner, gun sight, machine vision, biomedical, particle counter, laser leveler, optical sensor, etc. Contact: Jeff Hsu, Manager of Sales and Marketing, jhsu@ayaseamerica.com; Takako Jang, Operating Manager, tjang@ayaseamerica.com.

AZURE Photonics Co. Ltd.



3rd Fl Bldg 18 Juyuanzhou Industrial Zone, No 618 Jinshan Blvd, Fuzhou Fujian, China, 350002
86 591 83850581; fax 86 591 83850580
sales@azurephotonics.com; www.azurephotonics.com

New Product: Series mega-pixel lenses for 5.7mm, 8mm, 16mm, 24mm, 30mm, 80mm.

AZURE Photonics Co., Ltd, established in 2000, is an ISO 9001:2000 certified professional manufacturer of optical and photoelectric components. We are located in Fuzhou, China. AZURE's key products include precision Prisms, Optical Lenses, Windows, Mirrors, Color Filters, Custom Optics and a variety of crystal material, such as Sapphire, Quartz, MgF₂, CaF₂, Ge, Silicon etc. Contact: Marco Shen, Marketing Manager, marcoshen@azurephotonics.com.

#5023

#6040

#6309

#6298

#6008

#6179

Photonics West Exhibitor Directory

B&W Tek, Inc.

#738



19 Shea Way, Newark, DE, 19713
302/368-7824; fax 302/368-7830
info@bwtek.com; www.bwtek.com

New Product: Field portable Raman spectrometer with material identification software.

B&W Tek, Inc. provides high value solutions for photonics. A versatile product portfolio comprises an Off-The-Shelf selection of lasers, spectrometers and sampling accessories for the deep UV to the longwave NIR. B&W Tek OED and OEM services provide innovative solutions for the design, development and quality manufacturing to the most demanding requirements for analytical, industrial, medical, biophotonic and diagnostic applications. ISO 9001 and ISO 13485 certified. Contact: Kevin Carr, Vice President, Sales and Marketing; Meg Kakade, Marketing Coordinator, megk@bwtek.com.

Baden-Württemberg International

#1801

Willi-Bleicher-Strasse 19, Stuttgart, Germany, 70174
49 711 22787 0; fax 49 711 22787 22
info@bw-i.de; www.bw-invest.de

Baden-Wuerttemberg International is the economic development agency of the state of Baden-Wuerttemberg. Our goal is to promote our location worldwide. Our work includes a wide range of tasks: facilitating international cooperation between companies; marketing Baden-Wuerttemberg as a location for business, science, research, and universities; helping foreign companies establish facilities in Baden-Wuerttemberg; and the transfer of information and technical knowledge. Contact: Cornelia Frank, Executive Manager North America, cornelia.frank@bw-i.de.

Barr Associates Inc.

#234



2 Lyberty Way, Westford, MA, 01886
978/692-7513; fax 978/692-7443
barr@barrassociates.com; www.barrassociates.com

Barr Associates, Inc. is a leading manufacturer and supplier of optical interference filters/coatings (UV through Far-IR) in large or small volume for commercial, defense, space/aerospace and scientific applications. Barr offers precision coating solutions supporting all of the traditional filter types, plus Rugate Notch, Multi-Band, Ultra-narrow-Bandpass and Linear Variable, High Reflectors, Patterned-coatings, ITO, Metal (Solderable), Filter-Arrays and filters for Image-quality applications. Contact: George Minott, Business Development, Commercial Applications, gminott@barrassociates.com; Ali Smajkiewicz, President, ali@barrassociates.com.

BaySpec, Inc.

#6355



101 Hammond Ave, Fremont, CA, 94539
510/661-2008; fax 510/661-2009
info@bayspec.com; www.bayspec.com

New Product: Mini NIR f/2 Spectrometer, 100x sensitivity than VIS, at affordable prices.

BaySpec's revolutionary Volume Phase Gratings (VPG®) based spectral engines are widely deployed in over 15,000 field sites for applications ranging from optical test and measurement, fiber sensing, NIR spectroscopy and biomedical industries. "Spectroscopy" is in our DNA. Contact BaySpec today for your application needs. Contact: Sales, Manager, sales@bayspec.com.

Beamtech

#2038

203 Joseph St, O'Fallon, MO, 63366
636/272-7227; fax 636/272-3909
beamtech@rpmclasers.com; www.rpmclasers.com

New Product: Standard and custom lamp pumped laser systems up to 500J, CW and Qsw DPSS lasers and harmonics.

Beamtech Optronics Co., Ltd. specializes in high energy, low rep rate flashlamp laser systems as well as DPSS lasers for scientific research, OEM lasers for medical and industrial applications and custom-built laser systems tailored to customer requirements with up to 500J of energy. Their advances in VRM, single mode and SGM multimode beam quality technologies have established Beamtech as an industry leader in pulsed lamp pumped and CW diode pumped lasers with excellent beam quality. Contact: Shawn Smith, Product Manager.

Beamtech Optronics Co. Ltd.

#5108



5320 Lackner Cres, Richmond, BC, Canada, V7E 5Z9
604/725-1817; fax 604/277-9010
beamtech@shaw.ca; www.beamtech-laser.com

New Product: SGR-Extra-25 Q-switched Nd:YAG laser outputs 25J, 10ns, 1Hz for applications of laser peening.

Specializing in beam quality control technology of solid-state lasers, Beamtech offers DPSS and flashlamp pumped laser systems for scientific research, OEM lasers for medical and industrial applications and custom-built laser systems tailored to customer requirements. Recently, we built SGR-Extra large energy of 25J, 10ns at 1-10 Hz Nd:YAG Q-switched laser that is significant for applications of laser peening, Ti:sapphire pumping and laser flyer research. Contact: Xiaonian Fan, Overseas Marketing Director, fxn@beamtech-laser.com; Fang Zhang, President, fang@beamtech-laser.com.

Becker and Hickl GmbH

#733

Nahmitzer Damm 30, Berlin, Germany, D-12277
49 30 787 5632; fax 49 30 787 5734
info@becker-hickl.de; www.becker-hickl.de

New Product: Confocal Fluorescence Lifetime Imaging Microscope by adding DCS-120 to almost any microscope.

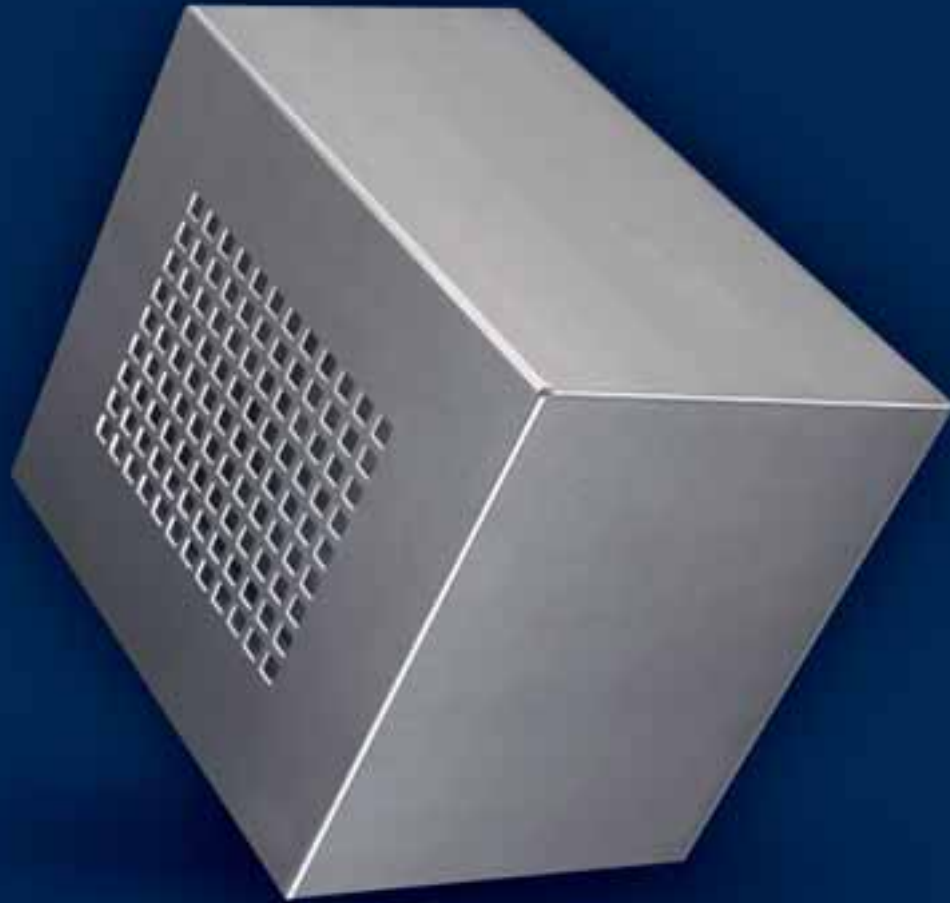
Time correlated Single Photon Counting (TCSPC) electronic modules providing PC based measurement solutions. Applications include Fluorescence Lifetime Imaging Microscopy (FLIM), Fluorescence Resonance Energy Transfer (FRET), Fluorescence Correlation Spectroscopy (FCS). Single photon counting detectors (MCP's, PMT's), Pulsed Diode Lasers, multichannel detector heads, routing devices for multichannel measurements, preamps, gated photon counters and multiscalers. Contact: John Devaney, Instrument Salesi, jid@boselec.com.

Beijing Century Sunny Technology Co., Ltd.#6328

No 65 Jiancai W Rd, Xi Sanqi Haidian, Beijing, China, 100096
86 10 82937456; fax 86 10 82930969
info@century-sunny.com; www.century-sunny.com

New Product: 3Dscanhead-300-15D provides six options with marking area from 300*300mm up to 1000*1000mm.

BCST is devoted to the R&D and manufacturing of galvanometer scanning system, control board and software with both PCI and USB interface. With years of experience in this area, BCST stands out with its state-of-the-art technology and excellent services. Currently, BCST has seven types of scanners and control boards and software with PCI and USB interface available. Great performance/price ratio has made BCST well received in the international market. Contact: Wang Jiguang, Vice President, info@century-sunny.com; Amy Wei, Sales Assistant, info@century-sunny.com.



The bright choice.

For decades, TRUMPF has provided innovations in laser processing for marking, cutting, welding, drilling, and metal deposition.

Built with high-quality focusing optics, beam guidance components, and optic monitoring sensors, TRUMPF lasers and laser systems are robust and meet strict standards for superior processing. As a leading producer of laser sources and systems, we supply versatile laser solutions for virtually any manufacturing need – from small and precise medical device manufacturing to heavy industrial applications.

CO₂ lasers

Disk lasers

Fiber lasers

Pulsed lasers

Ultrafast lasers

Marking lasers

Fabricating equipment



It must be a

734-454-7200 / oeminfo@us.trumpf.com

Photonics West Exhibitor Directory

Beijing Delfa Optoelectronics Inc.

#1940

Rm 503 Bldg 2 Fuhai Bldg, No 17 Daliushu Rd, Haidian District Beijing, China, 100081
86 10 6212 9087; fax 86 10 6212 8017
sales@delfa.com.cn; www.delfa.com.cn

New Product: Aspheric lenses made by Ge, Si, Znse, etc, micro-lenses and large lenses diameter over 300mm.

Beijing Delfa Optoelectronics Inc. is a leading China based supplier of advanced optical components and opto-electronic systems serving opto-electronics and R&D markets. We have been designing and manufacturing series single optical elements and multi lenses systems and coatings, including visible and IR image systems and opto-electronic devices for several years. Contact: Frank Liu, Managing Director, frankliu@delfa.com.cn.

Beijing Glass Research Institute

#1942

No 5 Xingguang 4 Ave, Opto-Mechatronics Industrial Park, Tongzhou District Beijing, China, 101111
86 10 81508384; fax 86 10 81508608
bgri@bgri.com; www.bgri.com

New Product: Calcium Fluoride Crystal and Polarization-Maintaining Optical Fiber.

Founded in 1960, BGRI has been growing by contributing to domestic and international projects in diverse areas of science and industry. Many Research and Development projects are consecutively taken into production. Research and Development laboratories and business divisions of Synthetic Crystal, Optical Fiber, Special Glass, Optical Thin Film were established. Commitment to development of the optical material technology, we are working in close collaboration with customers on providing high quality products and satisfactory support. Contact: Feng Gao, Vice Director Business Department, gf@bgri.com.

Beijing Opto-Electronics Technology Co., Ltd. (BOET)

#6153

No 11 Institute No 4 Jiuxianqiao Rd, Chaoyang District, Beijing, China, 100015
86 10 84561199; fax 86 10 84562777
sales@oet.com.cn; www.oet.com.cn

New Product: Laser Crystal Nd:YAG, Yb:YAG, Cr4+:YAG, Bonding Crystals, Er:YAG, Ho:Cr:Tm:YAG, Nd:Ce:YAG.

BOET is the leader in the large-scale production of Laser crystal grown by Czochralski method in China. Such as: Nd:YAG, Nd:Ce:YAG, Yb:YAG, Cr4+:YAG, Ho:Cr:Tm:YAG, Er:YAG and Bonding Crystals. Contact Heyi Lai, Sales Manager, laiheyi@oet.com.cn.

Benchmark Electronics

#6515

3535 Technology Dr NW, Rochester, MN, 55901
507/535-4000; fax 507/535-4828
www.bench.com

Berliner Glas US

#1635

SPIE Corporate Member

117 Underwood Rd, Williamsburg, VA, 23185
757/229-9368; fax 757/229-5213
photonics@berlinerglas.de; www.berlinerglas.com

Berliner Glas United States, a BERLINER GLAS GROUP company, offers a broad variety of precision thin film coated optical key-components, optical assemblies and optical systems from design to production. Services: whole process chain including clean room environment and individual measurement set-ups. Additional support: housing technology for MEMS and innovative display front panels for various applications. Markets: Semiconductor, Life Science, Medical, Industrial Sensors, Information Technology. Contact: Fred Doss, Sales Manager Precision Optics, fdoss@berlinerglas.com; Martin Wenzler, President, mwenzler@berlinerglas.com.

Bid Service

#3028

225 Willowbrook Rd, Freehold, NJ, 07728
732/863-9500; fax 732/863-1255
sales@bidservice.com; www.bidservice.com

Bid Service buys and sells high quality, refurbished equipment used in the semiconductor industry: wafer fab, assembly and test. We also offer added value, through system upgrades, and custom applications. All equipment is fully serviced by our in-house technical staff. We offer a 90 day warranty and also a 30 day return policy. Free catalog is available upon request. Contact: Robert Murphy, Sales Manager, bobm@bidservice.com; Roger Shupe, Managing Partner, roger@bidservice.com.

Big Sky Laser Technologies - see Quantel #427

SPIE Corporate Member

Quantel is a world leader in the design and manufacturing of fiber-lasers, diode and lamp pumped solid-state lasers, high power laser diodes, intense pulse light therapy and ultra-sound diagnostic products. Solutions include industrial, scientific, ophthalmologic, dermatologic, military and aerospace applications. Quantel also offers laser damage testing services. The United States subsidiary of Quantel was previously named Big Sky Laser Technologies and is now Quantel USA. Contact: sales@quantelusa.com.

Biophotonic Solutions, Inc.

#6399

3590 Breezy Point Dr, Okemos, MI, 48864
517/203-8518
pastirk@biophotonicsolutions.com;
www.biophotonicsolutions.com

New Product: MIIPS Box640 pulse shaper for fast measurement and compensation of ultrashort laser's spectral phase.

BiPhotonic Solutions Inc. is a R&D corporation, recognized for its leading technology in femtosecond laser pulse shaping. Our automated femtosecond pulse optimization technology embedded in MIIPS Box products covers imaging, sensing, micromachining and other applications. MIIPS accurately measures ultrashort pulses, eliminates phase distortions ensuring optimum results every time. If you use femtosecond pulses, let us optimize them. Contact: Marcos Dantus, CEO, dantus@biophotonicsolutions.com.

Marketplace

Your Source for SPIE Publications,
Professional Development Tools,
Gifts for Kids and Souvenirs.

Located Convention Center Lower Arcade.

Blue Ridge Optics LLC

#6900

SPIE Corporate Member

118 Center St, Bedford, VA, 24523
540/586-8526; fax 540/586-8527
walter@blueridgeoptics.com; www.blueridgeoptics.com
Blue Ridge Optics specializes in manufacturing custom high quality precision thin film coatings to a variety of consumers. Our industry leading designs have been used in a variety of applications within many industries and markets including aeronautical, aerospace, commercial, industrial, instrumentation, medical, military, R&D, scientific and telecommunications. Backed by nearly 30 years of industry experience, BRO provides the highest quality products with the fastest lead time in the industry. Contact: Walter Siehien, President, Walter@blueridgeoptics.com; Justin Siehien, Operations Manager, Justin@blueridgeoptics.com.

Blue Sky Research

#226

1537 Centre Pointe Dr, Milpitas, CA, 95035
408/941-6068; fax 408/941-0406
sales@blueskyresearch.com; www.blueskyresearch.com

New Product: FTEC 532 - Miniature 532nm, singlemode fiber coupled, stabilized laser module.

Blue Sky Research manufactures high performance laser diodes and laser modules incorporating our unique VPS (virtual point source) microlens technology, including lasers across the visible and infra-red spectrum from 375nm to 980nm. Products include; FiberMAX fiber coupled lasers, VPSL circulator components, Chromalase™ II, Fiberdrive™, FiberTEC™ series of integrated laser modules include free-space beam collimated, focused or fiber pigtailed laser diodes with integrated laser driver circuits and temperature control.

BMV Optical Technologies Inc.

#1700

26 Concourse Gate, Ottawa, ON, Canada, K2E 7T7
613/228-2442; fax 613/228-4003
info@bmvoptical.com; www.bmvoptical.com

BMV Optical Technologies is a manufacturer of precision optics for R&D, telecom and laser based applications. Services include optical design, fabrication of spherical, cylindrical, and ultra flat surfaces as well as thin film coatings. Products include lenses and lens systems, precision flats, laser windows, wedges, etalons, waveplates, beam splitters and sapphire optics. BMV produces UV, VIS and IR coatings such as anti-reflection, beam splitting, beam combining, dielectric and metal films. Contact: Tom Millen, President, info@bmvoptical.com; Terry Vineham, Vice President, tvineham@bmvoptical.com.



CONFERENCE NOTEPAD SPONSOR

Bookham Inc.

#1515

SPIE Corporate Member

2584 Junction Ave, San Jose, CA, 95134
408/919-1500; fax 408/919-1501
www.bookham.com

The Bookham high power laser diode portfolio includes single emitters, modules and high power bars for pumping fiber lasers, disc lasers, direct diode applications and frequency doubling. Stable and exceptionally reliable single and multimode VCSELs enable volume applications in sensing and communications markets. New Focus™ products encompass key components for optical tabletops (tunable lasers, Picomotor™ motion control actuators, optomechanics and optoelectronics), as well as a range of OEM solutions and filters.

Bordeaux Route des Lasers

#1714

37 ave du Général de Larminat, Bordeaux Cedex, France, 33001
33 5 57 57 84 83; fax 33 5 56 24 06 39
www.alpha-routedeslasers.com

ALPhA, Route des Lasers governing body, gathers industry, research and education actors from the optics and lasers sector in Bordeaux, Aquitaine. ALPhA is dedicated to facilitate optics and lasers technology development and diffusion, primarily laser systems and their applications, metrology and imaging and innovating physics, in industrial sectors such as: aeronautics and embedded systems, health, vision, chemistry, food industries, electronics, etc. Contact: Gabrielle MARRE, Optics and Laser Project Manager, alpha@2adi.aquitaine.fr.

Boston Electronics Corp.

#733

SPIE Corporate Member

91 Boylston St, Brookline, MA, 02445
800/347-5445; fax 617/731-0935
boselec@boselec.com; www.boselec.com

Products for optical signal detection and signal processing - Time Correlated Single Photon Counting electronics. Fluorescence Lifetime and Steady State Spectrometers, Quantum Cascade Lasers, Lock in amplifiers and optical choppers. UV and IR detectors. APD modules. Laser safety shutters. IR sources. Laser radar (LIDAR) receiver electronics. Contact: Fred Perry, President, fsp@boselec.com.

Boston Micromachines Corp.

#6269

SPIE Corporate Member

30 Spinelli Pl, Cambridge, MA, 02138-1046
617/868-4178; fax 617/868-7996
moreinfo@bostonmicromachines.com;
www.bostonmicromachines.com

Boulder Nonlinear Systems, Inc.

#1210

SPIE Corporate Member

450 Courtney Way Unit 107, Lafayette, CO, 80026
303/604-0077; fax 303/604-0066
info@bnonlinear.com; www.bnonlinear.com

New Product: Spatial Light Modulator with DVI Driver.

Boulder Nonlinear Systems, Inc. (BNS) designs, manufactures, and sells standard and custom light control solutions. Spatial Light Modulators, Polarization Rotators, and Optical Shutters are offered for beam forming, beam steering, biotechnology, microscopy, military/civil defense, phase/polarization control, pulse shaping, wavefront analysis/testing, and other applications. Contact: Kelly Gregorak, Sales, kelly@bnonlinear.com; Kipp Bauchert, Solutions Engineering.

Breault Research Organization

#422

SPIE Corporate Member

6400 E Grant Rd Ste 350, Tucson, AZ, 85715
800/882-5085; fax 520/721-9630
info@breault.com; www.breault.com

New Product: ASAP 2009 - Releasing early 2009 with new CAD, optimization, visualization, and analysis features.

BRO is an optical engineering firm of global reach and reputation. BRO's optical software products, including the industry-standard ASAP, help engineers turn creative visions into working prototypes, and the company's own engineers work on beyond-state-of-the-art projects for Fortune 500 companies, research institutions, and top government labs. In over three decades of innovation, BRO has contributed to the success of engineering projects for thousands of clients. Contact: Michelle White, Software Sales Administrator, mwhite@breault.com; Michael Frate, Business Development Manager (Engineering), mfrate@breault.com.

Photonics West Exhibitor Directory

Bright Solutions

#2038

203 Joseph St, O'Fallon, MO, 63366
636/272-7227; fax 636/272-3909
brightsolutions@rpmclasers.com; www.rpmclasers.com

New Product: 30W air cooled short pulsed marking/micromachining laser, high peak power laser from 500kW to 2MW.

Bright Solutions develops and manufactures innovative solid state lasers and opto-electronic systems. CW pumped lasers up to 30W at 100kHz and pulsewidths <40ns. Pulse pumped 2kHz lasers with energies up to 2mJ and pulsewidth <2ns. Harmonics too! The lasers are air cooled, have field replaceable diodes and have a small footprint. Founded in 1998 by experienced laser researchers/engineers from University of Pavia. Bright Solutions has systems deployed throughout the world. Contact: Joe Redding, Product Manager, joe@rpmclasers.com; Chuck Ratermann, President, chuck@rpmclasers.com.

Brighten Optics Ltd.

#539

#110-11880 Hammersmith Way, Richmond, BC, Canada, V7A 5C8
604/241-9586; fax 604/729-6283
ben@brightenoptics.com; www.brightenoptics.com

Brimrose Corporation of America

#1337

19 Loveton Circle, Sparks, MD, 21152-9201
410/472-7070; fax 410/472-7960
office@brimrose.com; www.brimrose.com

New Product: The newest product is a Laser Vibrometer measuring amplitude and frequency of vibrations.

Broad selection of free space and/or fiber-pigtailed Acousto-Optic devices including AO Tunable Filters, Frequency Shifters, Modulators, Deflectors, Q-Switches, Mode-Lockers and Cavity Dumpers, Recirculating Loop Systems, Optical Switches, Fiber Collimators and Focusers. Our systems include AOTF Imaging Subsystems, Imaging and NIR Spectrometers, DPSS Green and 1064 nm Laser Series. Contact: Dr. Jolanta Soos Rosemeier, Chief Technology Officer, jsoos@brimrose.com; Daniel Yang, Sales Representative, zyang@brimrose.com.

Bristol Instruments, Inc.

#6096



7647 Main St Fishers, Victor, NY, 14564
585/924-2620; fax 585/924-2623
info@bristol-inst.com; www.bristol-inst.com

New Product: The model 228 measures the wavelength of tunable DWDM lasers to an accuracy as high as ± 0.3 pm.

Bristol Instruments offers laser wavelength meters that provide the reliable accuracy required for the most demanding applications. Systems are available to measure absolute wavelength of pulsed and CW lasers with an accuracy as high as ± 0.0001 nm. Systems are offered for operation within the wavelength range of 350 nm to 11.0 μ m. Bristol Instruments also provides accessories, repair services, and free technical support for old Burleigh products such as the RC Fabry-Perot interferometer. Contact: Walter Hersom, National Sales Manager, whersom@bristol-inst.com; Brian Samoriski, President, bsamoriski@bristol-inst.com.

Brooks Automation Inc.

#134

15 Elizabeth Dr, Chelmsford, MA, 01804
978/262-2400; fax 978/262-2500
info@brooks.com; www.brooks.com

Brooks Automation is the global leader in the development and application of innovative vacuum technology solutions. We provide a broad range of critical vacuum components, controls and subsystems that are key to the performance of semiconductor, flat panel and disk drive manufacturing equipment. Brooks solutions such as the TrueBluesm Service Agreements eliminate unscheduled downtime and deliver unmatched uptime support. Contact: Barbara Culhane, Corporate Marketing Manager, barbara.culhane@brooks.com.

Brush Ceramic Products

#6012

6100 S Tucson Blvd, Tucson, AZ, 85706
520/746-0699; fax 520/294-8906
sales@brushceramics.com; www.brushceramics.com

New Product: New Product: BW3250, 325 Watt Beryllium Oxide Ceramic - TC above our standard grade 285W/k BeO.

Brush Ceramic Products is the leading manufacturer of Beryllium Oxide Ceramics. BeO ceramics in laser technology enables optoelectronics to operate at higher temperatures in small, highly reliable packages. BeO provides thermal conductivity second only to diamond among electrically insulating materials, dissipating nearly 300W/mK at room temperature. BeO's thermal conductivity is ten times greater than Al₂O₃ ceramics and double AlN. Available in standard and custom configurations. Contact: Debbie Handley, Sales and Marketing Rep, dhandley@brushceramics.com; Lee Vandermark, Sales Manager, lee_vandermark@brushceramics.com.

Brush Wellman Inc.

#6354

14710 W Portage River S Rd, Elmore, OH, 43416
419/862-2745; fax 419/862-4174
john_hochberger@brushwellman.com;
www.berylliumproducts.com

Brush Wellman Beryllium Products is the premier integrated global producer of beryllium-based metals and metal matrix composites. We provide high-performance metals and metal-matrix composites for mission-critical commercial, aerospace, x-ray, acoustics, research and engineering applications that require the highest levels of performance. Beryllium is one of the lightest metals known. It presents the designer with a combination of desirable properties not found in any other material.

Bte Bedampfungstechnik GmbH

#1801

Am Ganzacker 2, Elsoff, Germany, 56479
49 2664 9960 0; fax 49 2664 9960 60
service@bte-born.de; www.bte-born.de

BWT Beijing Ltd.

#5103

Fengtai District, 5th No 4 A Hangfeng Rd, Beijing, China, 100070
86 10 83681051; fax 86 10 83681077
sales@bwt-bj.com; www.bwt-bj.com.cn

New Product: Dual wavelength from single fiber.

BWT Beijing LTD (BWT), a Chinese-American joint venture enterprise, a manufacturer which specially dedicates in packaging of pigtailed semiconductor lasers and detectors. BWT has strong ability to produce high stable semiconductor laser module of optical fiber output with various powers, wavelengths, and packages. Also BWT provides customizing products and OEM services. Contact: sales@bwt-bj.com.

Cal Sensors, Inc.

#6234

5460 Skylane Blvd., Santa Rosa, CA, 94503
707/545-4181; fax 707/545-5113
info@calsensors.com; www.calsensors.com

For over 20 years, Cal Sensors has been a worldwide supplier of infrared detectors and emitters. We offer lead sulfide and lead selenide single element and 256 element array detectors from stock or manufactured to your custom requirements. Stop by our booth to see the 256 element array in operation or to discuss our pulsable or steady-state IR emitters. Contact: Patricia Elias, Manager, Sales and Marketing, patti@calsensors.com; Weylin Pigg, Sales Manager, weylin@calsensors.com.

Calmar Optcom, Inc.

#6214

SPIE Corporate Member

755 N Pastoria Ave, Sunnyvale, CA, 94085
408/733-7800; fax 408/733-3800
sales@calmaropt.com; www.calmaropt.com

Leading manufacturer of ultrafast fiber laser system for 13 years; pulse energy >10μJ, average power >10W. OEM seed femtosecond fiber laser at 1.5μm /1μm, 10GHz, 40GHz and 100(s)GHz picosecond fiber laser, EDFA/YDFA, bit rate multiplier, electrical pulse generator. Applications: biomedical imaging and multi photon microscopy, vision correctional surgery, defense, micro-machining, telecommunications, testing and measurement. Contact: Peter Hu, Sales Director, phu@calmaropt.com; Claire Chen, Vice President of Marketing, claire@calmaropt.com.

Cambridge Technology, Inc.

#1241

SPIE Corporate Member

25 Hartwell Ave, Lexington, MA, 02421
781/541-1600; fax 781/541-1601
scanners@camtech.com; www.camtech.com

New Product: All Digital Scan Head Components for high speed, high accuracy, laser scanning applications.

Cambridge Technology Inc. is the market leader in closed-loop, galvanometer based optical scanning components, servos and controllers providing superior performance in a wide variety of applications including laser marking, engraving, drilling, machining, biomedical, ophthalmology, DNA sequencing, confocal microscopy, laser entertainment and projection and any application where laser beam steering is required. Contact: David Freihofer, Director, Sales and Marketing, davidf@camtech.com; Red Aylward, President, aylward@camtech.com.

Canada Pavilion

#1700


1200 Montreal Rd M-50, Ottawa, ON, Canada, K1A 0R6
613/993-6040; fax 613/952-5710
Sadiq.Hasnain@nrc-cnrc.gc.ca; www.cpfcc-ccfdp.nrc-cnrc.gc.ca

Canadian Institute for Photonics Innovations

#1700

Pavillon d'optique-photonique, 2375 rue de la Terrasse
Université Laval, Québec, QC, Canada, G1V 0A6
418/656-3013; fax 418/656-2995
cipi@cipi.ulavla.ca; www.cipi.ulaval.ca


The mission of the Canadian Institute for Photonic Innovations is to bring university researchers together with public sector and industrial partners in a network with state-of-the-art facilities in order to stimulate innovations in photonics and promote their exploitation to generate wealth and enhance the quality of life for Canadians. Contact: Nathalie Kinnard, Communications Coordinator, cipi@cipi.ulaval.ca; Robert Corriveau, President and CEO, Robert.corriveau@cipi.ulaval.ca.



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www.leadinglight.com.tw

InGaAs FPA and diodes



FPA Features

- High Operability
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- Low Dark Current (< 0.2pA, 298K)
- 320x256 and 640x512 array
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Canadian Photonics Consortium

#1700

200-2625 Queensview Dr, Ottawa, ON, Canada, K2B 8K2
cpc@cipi.ulaval.ca; www.photonics.ca

CPC is the voice for the Canadian Photonics community. Our members include companies - large and small; academic institutions and consortia; government labs and agencies - both federal and prov. We bring together business, academic and government leaders. We involve scientists, engineers and management consultants, experts in law and finance - anyone who has an interest in the future success of the Canadian Photonics industry. CPC's vision is to establish Canada as the place for business success in Optics and Photonics. Contact: Michael Scott, Executive Director, Michael_scott@rogers.com; Jacques Labelle, Chairman, Jacques@photoniquequebec.ca.

Canadian Photonics Fabrication Centre (CPFC)

#6290

1200 Montreal Rd Bldg M-50, Ottawa, ON, Canada, K1A 0R6
613/991-1143; fax 613/990-7203
info@cpfc.com; http://cpfc.ca

CPFC is a photonics foundry specializing in active and passive devices in III-V semiconductors and silicon. We help "bridge the gap" between the R&D and commercialization of photonics devices in a wide range of industries. Our state-of-the-art facility and experienced technical team provide you with industrial grade semiconductor foundry solutions for active and passive photonic applications, ranging from discrete photonic devices to complete photonic integrated circuits (PICs). Contact: info@cpfc.ca.

Photonics West Exhibitor Directory

Canon U.S.A.

#6128

One Canon Plaza, Lake Success, NY, 11042
516/328-5000; fax 516/328-4601
rtravis@cusa.canon.com; www.usa.canon.com

New Product: Canon Digital Galvo Scanner System. No thermal drift, Full digital servo control, Dual head encoder.

Canon USA is a world-class provider of high-resolution Rotary and Linear Encoders, low-cost noncontact Laser Doppler Velocity Sensors, Digital Scanning Systems, and other encoder products. The company's ongoing research and development has achieved outstanding precision and high level technology throughout Canon's product offering. Contact: Ron Travis, Sales Manager, rtravis@cusa.canon.com.

Capovani Brothers Inc.

#5057

704 Corporations Park, Scotia, NY, 12302
518/346-8347; fax 518/381-9578
cbi@capovani.com; www.capovani.com

Capovani Brothers Inc. is a buyer and reseller of semiconductor manufacturing and related equipment. Our inventory is derived from the MEMS, Nanotechnology, Optoelectronic and Photonics industries. All equipment sold is refurbished by our engineers and guaranteed. For the past twenty years we have been successful in our mission of providing quality used equipment at a great value with fair and honest dealing. Our entire inventory is updated daily and available on the internet; www.capovani.com. Contact: Ed Capovani, Vice President, cbi@capovani.com; Rachel Capovani, Sales Manager, rachel@capovani.com.

Carl Hanser Verlag GmbH and Co. KG

#5105

Kolbergerstr 22, Munich, Germany, 81679
49 89 998300; fax 49 89 984809
info@hanser.de; www.hanser.de

Carl Zeiss Microlmaging, Inc.

#6609

One Zeiss Dr, Thornwood, NY, 10594
800/233-2343; fax 914/681-7445
micro@zeiss.com; www.zeiss.com/photo

New Product: Zeiss ZF-I large format lenses for machine vision cameras.

Carl Zeiss is a leading international group of companies operating worldwide in the optical and opto-electronic industry. They offer products and services. For biomedical research and medical technology, system solutions for the semiconductor, automotive and mechanical engineering industries, as well as high-quality consumer goods such as camera lenses and binoculars. Contact: Richard Schleuning, National Sales Manager, International Sales Americas, rschleuning@zeiss.com.

Carley Lamps

#6409

1502 W 228th St, Torrance, CA, 90501
310/325-8474; fax 310/534-2912
sales@carleylamps.com; www.carleylamps.com

Since 1960 Carley Lamps has been working with Engineers and OEM's to produce the highest quality miniature light bulbs and reflectors at reasonable prices. A full range of miniature HID lamps, Reflectors, I/R sources and Xenon Lamps are currently available. Highly trained and experienced Engineers are ready to work with you on your custom OEM project to get you the exact light source needed. Contact: Carley Lamps today at Sales@CarleyLamps.com or (310) 325-8474 or visit us on the web at www.CarleyLamps.com to get your project underway.

Carolinas Photonics Consortium #6175, 6177

Grigg Rm 235/Univ of N Carolina Charlotte, 9201 University City Blvd, Charlotte, NC, 28223
864/325-4700; fax 704/687-8241
jcon@charter.net; www.carolinasphotonics.com

New Product: CPC - Largest Research / Commercialization Capability in a Unique, Six University Collaboration.

The Carolinas Photonics Consortium is a collaboration of six universities, each with world class photonics capabilities: UNC Charlotte, NC State University, Western Carolina University, East Carolina University, Duke and Clemson. CPC has received investments in buildings and equipment that exceed \$300M, which is arguably the largest concentration of photonics resources in the US. CPC's charter is to commercialize photonics-based technologies, which originate from the six universities. Contact: Jeff Conley, Director, jcon@charter.net; Mike Fiddy, Center Director, mafiddy@uncc.edu.

CASIX, Inc.

#1931

Fuxing Investment District, 20 Fuxing St, Fuzhou Fujian, China, 350014
86 591 83610148; fax 86 591 83621248
sales@casix.com; www.casix.com

New Product: High performance Diode-Pumped Microchip (DPM) with larger than 40mW output power.

CASIX, a Fabrinet company, focus on developing and manufacturing high quality crystal, precision optics components and optical sub-assemblies for telecom application, commercial laser, instrument systems, medical instrument, surveying, measuring and scanning, and consumer electronics. Contact: marketing@casix.com, sales@casix.com.



EXHIBITION MAP/RESTAURANT GUIDE SPONSOR

CASTECH Inc.

#5090

155 Yangqiao West Rd, Fuzhou Fujian, China, 350002
86 591 371 0533; fax 86 591 371 1593
sales@castech.com; www.castech.com

New Product: CASTECH introduced BBO pockels cell and Q-switch driver.

CASTECH is a worldwide leading supplier of nonlinear optical crystals, laser crystals, and a variety of optical components. Contact: Chen Ye, Sales Manager, sales@castech.com.

CDGM Glass Co., Ltd.

#1945

No 6 Jianshenanzhi Rd, Chengdu Sichuan, China, 610051
86 28 843 325 31; fax 86 28 843 982 08
gmgd1@cdgmgd.com; www.cdgmgd.com

Founded in 1956, CDGM Glass Co., Ltd. Is the biggest production base of optical materials in China. Nowadays, not only can we supply more than 200 types of optical glass, including lanthanum glass, environmentally friendly glass and optoelectronic glass, but optical components as well. What's more, we are capable of purifying and processing precious metals like Platinum and Rhodium.

Cedova B.V.

#6270

High Tech Campus 12B, Eindhoven, The Netherlands, 5656 AE
31 40 2512845; fax 31 84 7308840
info@cedova.com; www.cedova.com

Cedova is a pure play foundry and a leading edge supplier of foundry services to the optoelectronic industry. We have the capability to take your ideas from the concept stage, through R&D to manufacturing. Our specialty is the growth, regrowth and processing of InP/GaAs/GaN-based III-V semiconductor compounds. Contact: Dr. Huub P.M.M. Ambrosius, VP Business Development, huub.ambrosius@cedova.com; Dr. John Reid, CEO, john.reid@cedova.com.

CERAC, Subsidiary of Williams Advanced Materials

#1800

407 N 13th St, Milwaukee, WI, 53233
414/289-9800; fax 414/289-9805
www.cerac.com

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◆◆◆◆◆ **POPCORN STATIONS SPONSOR**

CeramOptec Industries, Inc.

#227

SPIE Corporation Member

515 Shaker Rd, East Longmeadow, MA, 01028
800/321-0790; fax 413/525-0611
salesengineering@ceramoptec.com; www.ceramoptec.com

New Product: Fiber optic vacuum feedthroughs for fiber assemblies or bundles. Custom and standard products.

CeramOptec Industries serves the scientific, medical and industrial markets with optical fiber, fiber bundles, assemblies, spectroscopy fibers and vacuum products. CeramOptec produces stock and custom silica/silica fiber, PCS, HCS, silver halide optical fibers, capillary tubing and low loss bundles and assemblies for us from the deep UV to MIR. Products for harsh temperatures, low to high NA (0.12 to 0.53). From preform manufacture to finished product, high quality at competitive prices. Contact: Cheryl Provost, Sales Engineer, cheryl.provost@ceramoptec.com; Kevin Bakhshpour, Director of Sales, kevinb@ceramoptec.com.

Changchun New Industries Optoelectronics Tech. Co.

#3020

No 668 Chuangxin Rd, High-Tech Zone, Changchun, China, 130012
86 431 85603799; fax 86 431 87020258
sales@cnilaser.com; www.cnilaser.com

New Product: CNI launched the fan cooled 15 watts 532 nm CW green laser in ultra-compact housing.

Changchun New Industries Optoelectronics Technology Co., Ltd. (CNI), founded in 1996, is the largest manufacturer and supplier of diode pumped all-solid-state lasers (DPSSL) in China. CNI produces CW, modulated and Q-switched laser modules with different wavelength, including UV, visible and Infrared which are widely used for industrial instrumentation applications in biomedical, laser show, material processing and so on. Contact: Ava Zheng, Salesman; Lu Wang, Salesman, cniding@126.com.

Chengdu Ultra Pure Applied Materials Co., Ltd.

#6600

No 3 Zhen Jianzou Rd, West High-Tech District, Chengdu Sichuan, China, 611731
86 28 661 13286; fax 86 28 879 58501
sales@upam.cn; www.upam.cn

Chengdu Ultra Pure Applied Materials Co., Ltd (UPAM) is one of the best thin film coating and ceramic/sputtering targets manufacturing company in China. The coating department of UPAM have many experiences in high power laser coating and mid to far Infrared coating. The damage threshold for laser films can reach 20J/cm²(1ns, 1064nm, 1on1). We also have experience to keep nearly the same wavefront value after coating due to some special request. UPAM's material department manufactured the high density HIP(2.1g/cm³) BN boat/liner/tube and LaB6 cathode for plasma. You are welcome to visit our website: www.upam.cn and send the RFQ to sales@upam.cn.

◆◆◆◆◆
◆◆◆◆◆ **GENERAL REFRESHMENTS SPONSOR**

China Daheng Group Inc.

#734

SPIE Corporation Member

#A9 Shangdi Xinxliu, Haidian District, Beijing, China, 100086
86 10 8278 2668; fax 86 10 8278 2669
optics@cdhcorp.com.cn; www.cdhcorp.com

China Daheng Group, Inc. is a Chinese leading company in Optics. It has a wide coverage of products to meet the varieties of market demands. Daheng Optics not only supplies comprehensive catalogue optics, precision positioning mechanical components, but also offers custom-designed OEM products, including optical coatings, CCD/CMOS cameras and vision products, optical modules and systems. It is capable of lens design, quick prototyping and engineering manufacture.

China International Optoelectronics Exposition

#5109

Rm 607 E Block Coastal City, Haide 3rd Rd Nanshan District, Shenzhen Guangdong, China, 518059
86 755 8629 0901; fax 86 755 8629 0951
cioe@cioe.cn; www.cioe.cn

New Product: CIOE 2009 will take place from September 6 - 9, 2009 at the Shenzhen Exhibition and Convention Center.

The CIOE displays the latest technologies and products in the fields of optical communications, lasers, infrared applications, sensor and measurement technologies, precision optics, LED lighting and displays and imaging. In 2008, the CIOE continued the growing trend and increased the exhibition area by 18% to 65,000 sqm. With more than 2,100 companies exhibiting at the CIOE and about 85,000 visitors surging through the halls, the CIOE is the world's largest exhibition for optoelectronics. Contact: Nancy He, International Project Manager, nancy@cioe.cn.

China Opto-Electro Industries, Co., Ltd.

#1944

10/F 3rd Bldg, No 81 Zi Zhuyuan Rd, Haidian District Beijing, China, 100089
86 10 88829906; fax 86 10 88829912
axy@oec.com.cn; www.oec.com.cn

Founded in 1987 and headquartered in Beijing, China Opto Electro Industries Co., Ltd., the earliest and the largest leading optical company group in China, has made remarkable contributions to the development of China's optical industry for twenty years. OEC supplies a wide range of portfolio encompassing Optical Materials, Optical Components, Optical Instruments and Electronic Instruments which are in the applications of Optical Communication, Display, Digital Camera, Mobile Phone, etc. Contact: Cindy An, Sales Director, Ayx@Oec.Com.Cn; Kevin Jiao, Sales Manager, Kevin@Oec.Com.Cn.

Chiral Photonics, Inc.

#6810

SPIE Corporation Member

26 Chapin Rd, PO Box 694, Pine Brook, NJ, 07058
973/732-0030; fax 973/732-0031
info@chiralphotonics.com; www.chiralphotonics.com

New Product: 1000C grating based fiber optic point temperature sensor element or packaged sensor to your design.

Chiral Photonics' patented process and devices include the chiral grating, which is fabricated by twisting, or microforming, the fiber as it is passed through a miniature heat zone to produce a distinct dip in the transmission spectrum for the feature product, the 1000C Temperature Sensor. The spectral position of the dip in this chiral fiber changes with temperature allowing it to be used as a temperature sensor. All products produced on automated mini towers the company developed. Contact: Gary Weiner, VP Marketing and Sales, gweiner@chiralphotonics.com; Dan Neugroschl, President, dann@chiralphotonics.com.

Photonics West Exhibitor Directory

Chroma Technology Corp

#441



PO Box 489, 10 Imtec Ln, Rockingham, VT, 05101
802/428-2500; fax 802/428-2525
sales@chroma.com; www.chroma.com

Chroma is an employee-owned company that designs and manufactures precision optical filters and coatings from 220-2600nm for myriad applications. We provide application engineering support and short cycle times and are as comfortable designing and manufacturing custom filters as we are our catalog items; regularly offering custom filters at catalog prices. Contact: Chris Conca, OEM Sales, oem@chroma.com; Mark Kfoury, OEM Sales, mkfoury@chroma.com.

Chunghwa Telecom Labs.

#6915

12 Ln 551 Min-Tsu Rd Section 5, Yang-Mei Taoyuan,
Taiwan, 32617
886 3 4244123; fax 886 3 4245234
http://www.leadinglight.com.tw/

Fabricates and provides state-of-the-art InGaAs sensors, including single element, linear array and focal plane array. The advanced technology and know how meet your requirement in the field of near infrared. Prompt and cost effective customer design solutions. Contact: Chao-Chi Hong, Sales Representative, cchong@cht.com.tw; Chia-Chien Lin, General Manager, chia_chien@cht.com.tw.

CIEC Overseas Exhibition Co., Ltd.

#1938

No 6 E Beisanhuan Rd, Chaoyang District, Beijing,
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www.ciec-overseas.com

CIEC Overseas Exhibition Co., Ltd. is a wholly owned subsidiary of CIEC Group. We were established in 1993 with the objective of introducing international trade fairs to Chinese companies and organizing Chinese companies participate in the exhibitions. Contact: Song Qiushuang, Project Manager, songqiushuang@ciec.com.cn; Zhang Meijuan, Assistant, zhanmeijuan@ciec.com.cn.

City of Cocoa Office of Economic Development

#639

603 Brevard Ave, Cocoa, FL, 32922
321/637-7219; fax 321/639-7575
msharpe@cocoaf1.com; www.cocoaf1.org

CLASER Photonics Inc.

#6161

No 635 Huocheng Jiading, Shanghai, China, 201800
86 21 39108810; fax 82 21 69528257
sales@clasers.com; www.clasers.com

New Product: TGG, Grown YVO₄+Nd:YVO₄, Diffusion Bonding Crystals. Special Shape optics, Er:Glass, Nd:Glass.

CLASER is a leading company in crystals, optics and laser components. We supply the high quality crystals and optics for laser systems. We supply the Er:Glass, TGG, bonding crystals etc. Contact: Hovey Song, Sales Engineers.

Clear Align

#6120



2550 Boulevard of the Generals Ste 280, Eagleville, PA, 19403
484/956-0510; fax 484/956-0511
laura.hasen@clearalign.com; www.clearalign.com

New Product: The Zoom-Zoom camera family delivers high-resolution dual-band imaging with dual zoom capability.

Clear Align designs, prototypes and manufactures custom imaging and fiber optic systems for defense, commercial and medical customers. Clear Align's imaging expertise spans UV, visible, NIR, SWIR, MWIR, and LWIR portions of the spectrum, delivering both narrow and wide fields of view systems. Fiber optic expertise includes optical integration for communications, sensing and targeting. Clear Align's team delivers high-quality results with a customer-centered approach that sets us apart. Contact: Dr. Mike Finlan, VP Imaging, mike.finlan@clearalign.com; Robert Irvin, VP Fiber Optics, robert.irvin@clearalign.com.

Clemson University - COMSET

#6173

91 Technology Rd, Anderson, SC, 29625
864/656-1660; fax 864/656-1099
http://comset.clemson.edu

The Center for Optical Materials Science and Engineering Technologies (COMSET) is an internationally recognized program at Clemson University focused on cutting edge research, education, and technology transfer on materials for optical fiber and related photonic technologies. COMSET is an academic resource for passive and active optical fiber materials research. COMSET operates a fully functional and readily reconfigurable Heathway fiber draw tower and an SG Controls MCVD lathe. Contact: Dr. Paul Foy, Director, Optical Fiber Laboratories, pfoy@clemson.edu; Dr. John Ballato, Director, COMSET, jballat@clemson.edu.

Coastal Connections

#6398

2368 Eastman Ave Unit 11, Ventura, CA, 93003
805/644-5051; fax 805/644-5355
sales@coastalcon.com; www.coastalcon.com

New Product: Well tip FC termination for high power cable. Fiber and ferrule polishing at any angle for PM and SM.

Coastal Connections is the leading provider of engineered fiber optic cables and terminations in the USA specializing in short, 400-980nm wavelengths and custom solutions for all environments. Offering fiber and ferrule polishing at any angle along with SM, PM, MM and high power cables for medical, military, research and telecommunication industries. All cable applications including arterial catheters, lasers devices, aircraft, spacecraft, ships and long outdoor runs. www.coastalcon.com. Contact: Andy Devine.

Coastal Optical Systems, Inc.

#1227



16490 Innovation Dr, Jupiter, FL, 33478-6428
561/881-7400; fax 561/881-1947
sales@coastalopt.com; www.coastalopt.com

New Product: UV-NIR color corrected (310 nm - 1100 nm) lens for forensics, science and law enforcement.

Coastal Optical Systems specializes in rapid design and manufacture of custom precision lens assemblies and sensor integration for biomedical, inspection and metrology, defense, 3D entertainment and space. Design, optical fabrication, assembly, system alignment and optical testing are performed in-house in Jupiter, Florida. Coastal distributes JENOPTIK's VarioCAM® infrared camera, JENfizar® interferometer accessories and JENmetar™ machine vision lenses in the United States. Contact: Ray Malcom, Vice President, Marketing and Sales, Ray.Malcom@coastalopt.com; Gabriela Lieske, Inside Sales, Gabriela.lieske@coastalopt.com.

LASER INSTITUTE OF AMERICA



The Laser Institute of America (LIA) is the international society for laser applications and safety.

LIA offers technical information and networking opportunities to laser users from around the globe.

800.34LASER | 407.380.1553
www.laserinstitute.org



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Cobolt AB

#1627

Vretenvägen 13, Solna, Sweden, SE-171 54
46 8 545 912 30; fax 46 8 545 912 31
www.cobolt.se

New Product: The Cobolt Mambo is a solid-state laser with a wavelength of 594nm and output power of 25 mW.

Cobolt AB, Stockholm, Sweden, supplies diode-pumped solid-state lasers (DPSSLs) in the visible and near-infrared, for stand-alone use or OEM integration. Built on proprietary PPKTP technology, the Cobolt lasers combine high power and wavelength flexibility with low noise and compact size. Available wavelengths are 561, 491, 532 and 473 nm. The lasers are designed for use in demanding applications within bioanalysis, fluid dynamics, spectroscopy and holography. Contact: Philip Crowley, Sales, Phil@markettechinc.net.

CODIXX AG

#1827

9 River Rd, Hudson, NH, 03051
603/821-7040; fax 603/821-7041
www.lasercomponents.com

New Product: CODIXX colorPol® polarizers extended wavelength capability from 340nm to new 5,000nm (IR) region.

Produces dichroic glass polarizers for UV, VIS, IR range (340nm-5,000nm), known under as colorPol®. Products have characteristics like high acceptance angle of 0°- +20°, transmittance up to 98%, high contrast ratios of 70dB and wide operating temperature range <-50°C-+400°C; available with low wavefront distortion. Contact: Gary Hayes, General Manager, hayes@laser-components.com; Kevin King, Sales Engineer, kking@laser-components.com.

Coherent Inc.

#1119

SPIE Corporate Member

5100 Patrick Henry Dr, Santa Clara, CA, 95054
408/764-4000; fax 408/764-4646
tech.sales@coherent.com; www.coherent.com

World's leading manufacturer of photonics-based products for a wide range of commercial and scientific applications. Industry's largest and most diverse selection of lasers - over 100 different standard models-plus crystals, precision optics and a wide range of laser test and measurement equipment. Highly reliable, high performance product lines include CO₂, continuous-wave, diode, diode module, diode-pumped solid-state, excimer, ion, tunable-dye, YAG, YLF and ultrafast lasers. Contact: Joseph Jordan, Advanced Technical Sales, joseph.jordan@coherent.com; Robert Bohorquez, Advanced Technical Sales, robert.bohorquez@coherent.com.

Coining, Inc.

#6361

280 Midland Ave, Saddle Brook, NJ, 07663
201/791-4020; fax 201/791-1637
jscelzo@coininginc.com; www.coininginc.com

Manufacturer and global supplier of quality soldering and brazing preforms. Highly pure alloys of gold, silver, lead, tin, indium, bismuth, palladium, copper, Kovar®, molybdenum, clad and plated. *New Cover Assemblies (preform/lid). Thousands of standard and custom designs. Short lead times. Request our CD which includes alloy and standard tool lists. Contact: Julie Scelzo, Sales Manager, jscelzo@coininginc.com; Gary Gordon, Inside Sales, ggordon@coininginc.com.

Photonics West Exhibitor Directory



GENERAL REFRESHMENTS SPONSOR

Collimated Holes, Inc.

#1441

460 Division St, Campbell, CA, 95008-6923
408/374-5080; fax 408/374-0670
chi_2000@pacbell.net; www.collimatedholes.com
Collimated Holes, Inc. produces unusual structures of glass for biotechnology, telecom, scientific, industrial and medical applications: fused fiber structures, single and multi-channel capillaries, drawn or etched holes, matrix arrays for coupling and isolation, geometry converters, and fused fiber optic scintillating screens for x-ray detection. Contact: Matt Fate, Sales Engineer, chi_2000@pacbell.net.

Colorado Photonics Industry Association #1212

1155 Canyon Blvd Ste 400, Boulder, CO, 80302
303/452-4064; fax 303/582-4061
cpia@coloradophotonics.org; www.coloradophotonics.org

New Product: New! updated directory of all photonics companies in Colorado.

The Colorado Photonics Industry Association supports and promotes the 250+ companies involved in photonics products, the 7 research institutions, the 4 National Labs doing photonics work, and the 2 Nobel laureates for Physics. Contact: Barbara Ihde, Executive Director, cpia@coloradophotonics.org.

Computer Modules, Inc.

#6282

11409 W Bernardo Ct, San Diego, CA, 92127
858/613-1818; fax 858/613-1815
inform@compumodules.com; www.compumodules.com

New Product: Hitachi Kokusai's Gig-E cameras include the color KP-FD33GV 1/3-inch with VGA resolution and 90fps.

Computer Modules is a well-established machine vision component and systems provider. We provide CCD color, b/w, and progressive scan machine vision cameras from Hitachi Kokusai, a worldwide supplier of cameras to the industrial, medical, scientific, security, telecommunications and broadcast markets. We also sell high-speed motion analysis systems, lenses, LED lighting, imaging software, and frame grabbers. We are also a pioneering supplier of X-ray cameras and high-resolution CMOS USB cameras. Contact: Ray Asturias, Sales Engineer, ray@compumodules.com.

Computer Optics Inc.

#333

120 Derry Rd, Hudson, NH, 03051
603/889-2116; fax 603/889-2393
sales@computeroptics.com; www.computeroptics.com

New Product: Mid-wave infrared (MWIR) continuous zoom from 30mm-600mm. 16 mm. In stock at IRZoom.com. Booth 333.

Have an optical Challenge or interested in the latest in infrared zoom lens technology? COI, home of IRZoom.com, (Booth 333) is a world leader in infrared zoom lens technology. We offer a wide selection of stock infrared lenses, as well as custom design, consulting and manufacturing for highly precise military, commercial, search and rescue, surveillance and security applications. We're proud of our 25 year collaboration with all branches of the US military, businesses, NASA and more. Contact: Dr. Jonathan S. Kane, President, COI and Business Unit Manager, IRZoom.com, jon@computeroptics.com.



Free Popcorn

Popcorn carts will be located in the back of Exhibition Hall 3 and South Hall 1 and will be open from 11:00 am to 4:00 pm, Tuesday through Thursday.

COMSOL Inc.

#6074

1 NE Executive Park Ste 350, Burlington, MA, 01803
781/273-3322; fax 781/273-6603
info@comsol.com; www.comsol.com

COMSOL Multiphysics is an industry-leading scientific-software package for the modeling and simulation of any physics-based system. A particular strength is its ability to account for interdependent, coupled physics, known as multiphysics phenomena. Modules for specific disciplines including Chemical Engineering, Earth Science, AC/DC, RF, Heat Transfer, MEMS and Structural Mechanics are available. Contact: Jeff Hiller, VP of Sales, jf@comsol.com.

Conex Systems Technology, Inc.

#716

2603 Camino Ramon Ste 200, San Ramon, CA, 94583
925/735-8825; fax 925/735-8824
crystals@castech-us.com; www.castech-us.com

New Product: Supplier of LBO, BBO crystals and KTP, KDP, YVO₄, Nd:YVO₄, Nd:YAG, LiNbO₃, LiTaO₃ and other crystal.

Conex supplies nonlinear optic (NLO) crystals and other optical materials. It is one of most reliable source for LBO, BBO Crystals and low cost, high quality wedges, KTP, KDP, YVO₄, Nd:YVO₄, Nd:YAG, LiNbO₃, LiTaO₃ and other optic crystals. Conex offers technical services and satisfaction guarantee for crystal products. Contact: Julia Kanki, Manager.

Continuum

#1727



3150 Central Expy, Santa Clara, CA, 95051-0816
800/532-1064; fax 408/727-3550
info@continuumlasers.com; www.continuumlasers.com

New Product: Introducing Genus: the 5J green, 10Hz large frame Nd:YAG laser for high energy pump applications.

Continuum is the global leader in high energy YAG lasers, OPOs, and dye lasers for scientific, OEM and industrial applications. Standard and custom Nd:YAG lasers range from 25mJ/pulse to 7J/pulse; tunable accessories range from 205nm to 2650nm. Variable pulsewidth systems include 50ns to 50µs outputs. Glass lasers (>50J) are also available. Contact: Michael LaHa, Program Manager, Custom Systems, m.laha@continuumlasers.com.

The Cooke Corp.

#1839



6930 Metroplex Dr, Romulus, MI, 48174
248/276-8820; fax 248/276-8825
info@cookecorp.com; www.cookecorp.com

New Product: pco.dimax high speed 12bit CMOS camera system, 1100 fps at 2016 x 2016 and 4000 fps @ 1032 x 1024.

Manufacturer of high speed and high performance digital CCD/ICCD and CMOS cameras for OEM, scientific, industrial and military applications. Low noise CCD cameras from 1.3 to 11Mpixel resolution, up to 14bit dynamic range and high frame rates. High speed CMOS from 1.3Mpixel 10bit with 50ns exposure times and 4Mpixel 12bit featuring full framing rates of 1100fps and 4000fps at 1032 x 1024 pixels. OEM versions available. Cameras feature Firewire, GigE and Camera Link outputs and come complete with software. Contact: Murad Karmali, Vice President, Sales, murad.karmali@cookecorp.com.

CorActive High-Tech, Inc.

SPIE Corporate Member

2700 Jean-Perrin Ste 121, Quebec, QC, Canada, G2C 1S9
418/845-2466; fax 418/845-2609
sales@coractive.com; www.coractive.com

CorActive, a financed independent developer and manufacturer of advanced Specialty Optical Fiber (SOF) products for OEM customers. CorActive uniquely offers a full line of standard SOF products, including Double Clad, Mid-IR transmission, Erbium doped single clad, Ultra Violet Sensitive and Attenuating optical fiber, plus custom fiber development services for specific applications. Contact: Jean Dubé, Vice President Sales.

Coresix Precision Glass, Inc.

1737 Endeavor Dr, Williamsburg, VA, 23185
757/888-1361; fax 757/888-1366
ralston@coresix.com; www.coresix.com

Coresix is an industry leader in the development, manufacturing and fabrication of precision glass components for customers in a wide array of markets including photonics, display, biotech, imaging, micro-electronics, replication, lithography, sensor and semiconductor. Our products are made to exacting dimensional and spectral tolerances. We specialize in providing flat glass components to the highest levels of surface quality and cleanliness. Contact: Al Ralston, Sales Manager, ralston@coresix.com; Ellis Washington, Sales Representative, washington@coresix.com.

#6228

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Corning Inc.

SPIE Corporate Member

1 Riverfront Plaza, Corning, NY, 14831
607/974-9000; fax 607/974-8177
www.corning.com

#342

CRC Press - Taylor and Francis Group LLC #6186

6000 Broken Sound Pkwy NW Ste 300, Boca Raton, FL, 33487
561/994-0555; fax 561/998-2559
orders@crcpress.com; www.crcpress.com

New Product: Recent Publication: Photonic MEMS Devices: Design, Fabrication and Control by Ai-Qun Liu.

CRC Press - Taylor and Francis Group is a premier publisher of Optical Science, Technology, and Engineering books, journals and electronic databases. During the conference, CRC will offer 50% off Discount Specials and range of discounts from 15-25% off newer items. Free sample journals will also be available. Stop by to peruse our unique line of upper level optical science and engineering textbooks and references. Contact: Nadja English, Senior Marketing Manager, nadja.english@taylorandfrancis.com; Customer Service, orders@taylorandfrancis.com.

#6196

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Photonics West Exhibitor Directory

CREOL, The College of Optics and Photonics/ Univ. of Central Florida #639



CREOL Bldg 53, 4000 Central Florida Blvd, Orlando, FL, 32816-2700
407/823-6800; fax 407/823-6880
info@creol.ucf.edu; www.creol.ucf.edu

CREOL, The College of Optics and Photonics at the University of Central Florida is an internationally recognized academic and research institution, offering MS and PhD degrees in Optics, and serves as a scientific and technical resource to industry. The College has research programs covering all aspects of optics, lasers, and photonics and their many applications. The College works in close partnership with the Florida High Tech Corridor Council and several Florida economic development organizations.

CRI, Inc. #1646



35-B Cabot Rd, Woburn, MA, 01801
781/935-9099; fax 781/935-3388
sales@cri_inc.com; www.cri-inc.com

CRI is a global leader in innovative optical imaging solutions. Our multidisciplinary team provides high-value solutions to commercial and academic customers. With over 80 patents pending and issued, our innovations have been enabling breakthroughs for over 20 years. We offer a broad array of tunable, solid-state optical components and modules for use in wavelength selection, polarization optics, and light modulation. CRI services a global network of distributors and OEM partners. Contact: Ross Nakatsuji, rnakatsuji@cri-inc.com.

Cristal Laser SA #527



32 Rue Robert Schumann, Messein, France, F-54850
33 3 83 47 01 01; fax 33 3 83 44 22 72
mail@cristal-laser.fr; www.cristal-laser.fr

New Product: Large-aperture LBO for the frequency-doubling of high energy infrared pulses.

Cristal Laser S.A. specializes in crystal growth, manufacturing and distribution for application in laser optics. Our product range includes KTP, KTA, RTP, LBO and now BBO crystals, which are being used as harmonic generators as well as OPO materials. Our state-of-the-art manufacturing tools also enable us to offer cut/polishing services on non house-made materials. Contact: Herve Albrecht, Sales Manager, herve@cristal-laser.fr; Phil Drew, Leading Edge Optical, pdrew@leadingedgeoptical.com.

Critical Link LLC #6096

6712 Brooklawn Pkwy, Syracuse, NY, 13211
315/425-4045; fax 315/425-4048
info@criticallink.com; www.criticallink.com

Since 1997 Critical Link has been helping our customers in a broad range of industries bring winning products to market faster and more cost effectively than possible through in house efforts alone. Critical Link is an embedded systems engineering firm providing end to end product engineering, custom off the shelf platforms, the CCDsp and MityDSP, used as product building blocks and ongoing product services. When it comes to CCD think Critical Link. Contact: Dawn Opolka, Business Development Manager, dawn.opolka@criticallink.com; Omar Rahim, Vice President, omar.rahim@criticallink.com.

Crosslight Software, Inc. #5107

121-3989 Henning Dr, Burnaby, BC, Canada, V5C 6P8
604/320-1704; fax 604/320-1734
info@crosslight.com; www.crosslight.com

New Product: Multi-junction compound solar cell simulator ring laser simulator.

Crosslight Software Inc. is an international company headquartered in greater Vancouver, Canada, which for over a decade has been dedicated to providing state-of-the-art TCAD tools for simulation of semiconductor devices and processes. Crosslight Software was the first commercial company to provide CAD software for electrical and optical modeling of laser diodes (LD), and it has maintained the leadership position in that field since then. Contact: Z.Q. Leo Li, VP of Engineering, zqli@crosslight.com; Michel Lestrade, Sales Manager, sales@crosslight.com.

CryLaS GmbH #1627

Ostendstr 25/Haus 4, Berlin, Germany, 12459
helmut.spanner@crylas.de; www.crylas.de

New Product: Mistral short pulse fiber laser. 5 Watts, 1ns laser at 1064nm.

CryLaS GmbH, is a supplier of advanced photonics technologies to customers in the scientific research, defense/security, life sciences and precision industrial manufacturing markets. CryLaS's innovative products include solid-state lasers for manufacturing, engineering and research applications. Contact: Philip Crowley, Sales, Phil@markettechinc.net.

Cryslaser Inc. #6416

#2 Shui Kou Rd, Jialong Industrial Park, Shuangliu Chengdu, China, 610200
86 28 854738151; fax 86 28 85738150
sales@cryslaser.com; www.cryslaser.com

New Product: Cryslaser's main products are: Nd:YAG, Nd,Ce:YAG, Er:YAG, Yb:YAG, Cr4+:YAG, KTP, LBO, BBO.

Cryslaser Inc is located in Chengdu, China, which covers more than 3000 square meters and own more than 50 staff members. We have established complete quality control and customer supporting systems, We always regard the quality and market requirements as our life and already has friendly relationship with overseas customers in USA, Russia, Korea, Japan etc. Cryslaser hope to make further understanding and friendly cooperation with you for a prosperous life in the future! Contact: Frank Wang, President; Wendy Dong, Sales Engineer, wendy_dong@cryslaser.com.

Crystal Fibre #2017



Blokken 84, Birkerød, Denmark, DK-3460
45 4348 2800; fax 45 4348 2801
contact@crystal-fibre.com; www.crystal-fibre.com

Crystal Fibre is the leader in microstructured photonic crystal fibers with a product line that includes LMA active double clad fibers for high power fiber lasers and amplifiers. Along with matching pump combiners and tapers, the aeroLASE products integrate these components as sub-assemblies to simplify fiber laser manufacture. Passive fibers include singlemode, multimode, high NA, hollow core, PM/PZ, and highly nonlinear fibers for supercontinuum generation, as well as custom-designed fibers. Contact: Richard Ramsay, Sales Manager, rjr@crystal-fibre.com; Cato Fagermo, Sales Manager, caf@crystal-fibre.com.

Crystal GmbH

#1801

Ostendstr 25, Berlin, Germany, 12459
49 30 5304 2500; fax 49 30 5304 2525
ulrich.krzeniessa@crystal-gmbh.com; www.crystal-gmbh.com

New Product: Diffusion bonded laser crystals, laser components, optical assemblies.

Crystal is a company committed to highly developed technologies and products with and related to crystals. Proven production technology and comprehensive measuring and testing procedures guarantee our exceptional standard of quality as well as the speed with which we meet your most sophisticated requirements. We apply our extensive experience in the field of crystal technology to processing specialized materials. Our expertise covers the spectrum from individual elements to large-scale orders. Contact: Ulrich Krzeniessa, Sales Engineer, ulrich.krzeniessa@crystal-gmbh.com; Steffen Sandner, Sales Engineer, steffen.sandner@crystal-gmbh.com.

Crystal Research, Inc.

#3032



48501 Warm Springs Blvd Ste 103, Fremont, CA, 94539
510/445-0833; fax 510/445-0835
info@eocrystal.com; www.eocrystal.com

New Product: Photo-Polymers, Electro-Optic Gratings, KTN Crystals, SBN Crystals, Laser Scanners.

Crystal Research, Inc. develops advanced photonic materials and technologies: We produce photo polymers for fabricating holographic gratings and electro-optic holograms. Our electro-optic holograms can be electrically switched on-and-off. We develop high-speed electro-optic scanners with unprecedented scanning angle. We produce SBN and KTN electro-optic crystals, which have the largest electro-optic coefficients. We produce highly efficient diode pumped solid state lasers. Contact: Suning Tang, President, tang.suning@eocrystal.com.

Crystal Systems, Inc.

#236

27 Congress St, Salem, MA, 01970-5575
978/745-0088; fax 978/744-5059
sales@crystalsystems.com; www.crystalsystems.com

Manufacturer of Sapphire and Ti:Sapphire for use in optics, IR applications, large windows, domes, laser rods, lenses, prisms, filters, substrates and other optical and non optical applications. Crystal Systems can provide a wide range of material grades to meet customers' requirements from economical to the highest quality sapphire available for demanding applications in defense, laser technology, electronics, life sciences and research. Contact: William Ripley, Senior Sales Engineer, bill@crystalsystems.com; Scott Cohen, Sales Engineer, scott@crystalsystems.com.

Crystal Technology, Inc.

#5066

1040 E Meadow Cr, Palo Alto, CA, 94303
650/856-7916; fax 650/354-0173
crystal-salespa@epcos.com; www.crystaltechnology.com

Crystal Technology is the leading manufacturer of lithium niobate and acousto-optic components. Our products include lithium niobate wafers for surface acoustic wave (SAW) applications and optical applications including wave guides, low pass filters, isolators and periodically poled lithium niobate (PPLN). We offer a full range of acousto-optic devices including modulators, deflectors, tunable filters and multi-channel modulators, as well as RF drive electronics and electro-optic q-switches. Contact: George Sadilek, Senior Sales Representative, george.sadilek@epcos.com.

CrystaLaser LC

#120



4750 Longley Ln #205, Reno, NV, 89502
775/348-4820; fax 775/348-7047
gale@crystalaser.com; www.crystalaser.com

New Product: Single longitudinal mode violet blue lasers at 375nm, 405nm, 440nm for Holographics application.

CrystaLaser designs and manufactures ultra-compact continuous wave and Q-switched pulsed DPSS laser systems from 5 mW to 4 W in a broad wavelength selection, from ultraviolet, violet, blue, green, yellow, red to infrared in a single longitudinal mode and TEM₀₀ mode with low amplitude noise. Our products are broadly used for Flow cytometry, Confocal microscopy, Raman spectroscopy, Fluorescence, Holographics, Optical tweeter, LIDAR, Semiconductor inspection, Solar panel processing applications. Contact: Michael Vrooman, Sales Manager, sales@crystalaser.com; Tony Zaki, Sales Engineer, sales@crystalaser.com.

CRYSTECH Inc.

#6076

177 Zhuzhou Rd, Qingdao Shandong, China, 266101
86 532 88703717; fax 86 532 88701077
sales@crystech.com; www.crystech.com

New Product: DPM Green Laser modules, for 3mW to 150mW GTR-KTP High used in high power CW green laser systems.

CRYSTECH is the world's leading manufacturer of NLO crystals and Laser crystals. Our main products include KTP, GTR-KTP, KTA, BBO BIBO, LN, etc. and Nd:YVO₄, Nd:YAG, Diffusion Bonded crystal, etc. and optical components. We have founded the world's largest KTP growing and processing line, can provide more than 200,000pcs/year KTP crystals. And the Green laser modules and Q-switches are available from us. Contact: Stella Yu, Vice President, sales@crystech.com; Kalinda Yang, Sales Manager, sales@crystech.com.

Crystran Ltd.

#6811

1 Broom Rd, Business Park, Poole Dorset, United Kingdom, BH12 4PA
44 1202 307650; fax 44 1202 307651
sales@crystran.co.uk; www.crystran.co.uk

New Product: Crystran will launch their newly revised "Handbook of Optical Materials" at the show.

Crystran Ltd. is a manufacturer of high quality optical components based in England. We specialize in IR and UV materials and manufacture windows, lenses, prisms and specialist optics as both standard products and to designs of our customers. We have established a reputation for customer service and on-time deliveries working in a broad range of materials including Calcium Fluoride, Magnesium Fluoride, Barium Fluoride, Zinc Selenide, Zinc Sulfide, Germanium and many more exotic materials. Contact: Chris Wallace, Marketing Executive, chris@crystran.co.uk; Keith Matthews, Marketing Manager.

CST Global Ltd.

#1733

Block 6.3 Kelvin Campus, Maryhill Rd, Glasgow, United Kingdom, G20 0SP
44 141 579 3000; fax 44 141 579 3040
salesinfo@compoundsemi.co.uk; www.compundsemi.co.uk

Photonics West Exhibitor Directory

Curamik Electronics Inc.

#6032

3770 Arapaho Rd, Addison, TX, 75001
214/615-1533; fax 214/615-1540
sales@curamikusa.com; www.curamikusa.com

Curamik Electronics is the world's leader in manufacture of coolers for high-power semiconductor laser diode bars. We also manufacture a variety of liquid coolers and high-thermal conductivity substrates for packaging of high-power semiconductors. Our parent company, Electrovac, is a world leader in supplying hermetic glass-to-metal-seal parts for semiconductor packaging. We can provide unique solutions to your packaging problems and competitive pricing with our highly-automated factories. Contact: Ken Credle, Regional Sales, kcredle@curamikusa.com; Andreas Utz-Kistner, Western Regional Sales, akistner@curamikusa.com.



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CVI Melles Griot

#927



200 Dorado Pl SE, Albuquerque, NM, 87123-3605
505/296-9541; fax 505/298-9908
optics@cvimellesgriot.com; www.cvimellesgriot.com

CVI Melles Griot gets you what you need, when you need it. From the UV to the IR we offer unmatched breadth and flexibility in lasers, optical components, and electro-optical assemblies. Our extensive new catalog, along with our custom and build-to-print capabilities deliver solutions from prototype to high-volume, OEM quantities. Providing solutions for semiconductor, biotechnology, industrial, and basic research applications, CVI Melles Griot manufactures on three continents, and maintains sales and engineering centers in 11 countries worldwide.

DataRay, Inc.

#446



605 Stapp Rd, Boulder Creek, CA, 95006
831/338-9055; fax 831/338-9098
sales@dataray.com; www.dataray.com

Dausinger+Giesen

#1801

Rotebuehlstr 87, Stuttgart, Germany, 70178
49 711 907060510; fax 49 711 907060610
www.dausinger-giesen.de

New Product: Thin disk module, OEM version, includes coupling unit, crystal mount and pump cavity.

Dausinger+Giesen is a start-up company located in Stuttgart, Germany. It offers the customer swift and effective access to thin disk laser technology. The product range extends over component supplying (contacted thin disks, thin disk modules) and the development of prototypes as well as fully functional customer-specific solutions. Contact: Friedrich Dausinger, Chief Executive Officer, dausinger@dausinger-giesen.de; Mikhail Larionov, Senior Scientist, larionov@dausinger-giesen.de.

Davidson Optronics, Inc.

#943



2223 W San Bernardino Rd, West Covina, CA, 90815
626/962-5181; fax 626/962-5188
sales@davidsonoptronics.com; www.davidsonoptronics.com

New Product: D-700, Digital Autocollimator D-275-400, Infrared Autocollimating Alignment Telescope.

Davidson Optronics provides optical metrology and test equipment regarded as the Standard of the Industry, including alignment telescopes, autocollimators, plano interferometers, optical flats, prisms and polygons. We also produce the TV Optoliner, a complete system for evaluating imaging devices. Custom components and instrumentation work is done in NIST-Certified facility. Contact: Sam Bailey, Vice President Sales, sam@davidsonoptronics.com; Charles Gaugh, Sales Manager.

Daylight Solutions

#6362



13029 Danielson St Ste 130, Poway, CA, 92064
858/391-1010; fax 858/679-9470
info@daylightsolutions.com; www.daylightsolutions.net

New Product: Mid-IR Fixed Wavelength External Cavity Quantum Cascade Laser, Pulsed and CW Models.

Daylight Solutions is a manufacturer of broadly tunable, room temperature, External Cavity Quantum Cascade Laser (EC-QCL) systems in the Mid-IR, advanced molecular detection, and imaging systems. The company's room temperature Mid-IR tunable and fixed wavelength lasers provide the core technology for significant advancement in the fields of medical diagnostics, homeland security, military applications and industrial/environmental monitoring. Options include Pulsed and CW models from 4 to 12 μm . Contact: Chris Armacost, Director of Sales, carmacost@daylightsolutions.com.

Dayoptics, Inc.

#5111



20 Baihua Zhou Rd, Jinshan Pushang Industrial Park, Fuzhou Fujian, China, 350008
86 591 83215681; fax 86 591 83215359
ussales@dayoptics.com; www.dayoptics.com

New Product: High Power High Damage Threshold PBS: ~20J/cm² @ 1064nm 10ns, 20Hz, Optical contacted.

Dayoptics, Inc. designs and manufactures optical and crystal components for worldwide customers. We excel at producing reliable high-quality products at very competitive prices. Equipped with the advanced facilities, such as interferometer, spectrometer, we are able to control every process of production to guarantee high quality product. Meanwhile, Dayoptics maintains a staff of experienced engineers and an excellent management team, who make contribution to its growth and success. Contact: Daisy Wu, Manager, daisy.wu@dayoptics.com; Alice Wan, Marketing, alice.wan@dayoptics.com.

DCM Tech, Inc.

#6240

4455 Theurer Blvd, Winona, MN, 55987
507/452-4043; fax 507/452-7970
interest@dcm-tech.com; www.dcm-tech.com

New Product: IG 281SD and IG 280SD grinders with new controls and upgraded castings for enhanced precision.

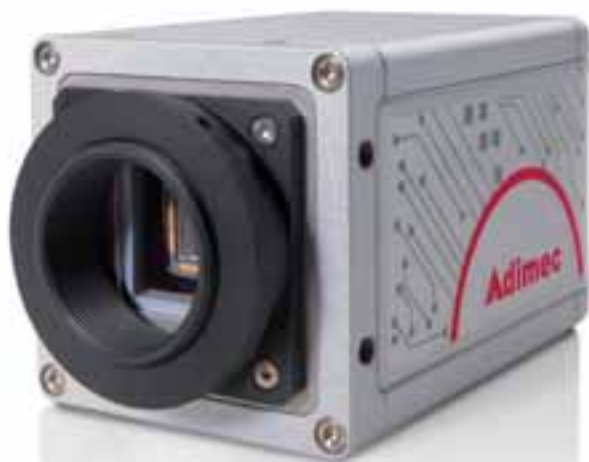
DCM-Tech manufactures rotary grinding machines for crystal, ceramic and metal alloy grinding processes. 30+ years of experience in producing grinders and specialized tooling at our facility in Winona, Minnesota gives DCM the ability to provide both custom and "stock" grinders for our customers. Contact: Skip Green, Technical Sales, skipgreen@dcm-tech.com; Mike Anderson, Technical Sales, mikeanderson@dcm-tech.com.





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(+81) 3-5968-8377
(+65) 6334-1236

Adimec
www.adimec.com

Photonics West Exhibitor Directory

Del Mar Photonics, Inc.

#3035



4119 Twilight Ridge, San Diego, CA, 92130
858/876-3133; fax 858/630-2376
sales@dmphotonics.com; www.dmphotonics.com

New Product: Near-field Scanning Optical Microscope (NSOM) for nano-characterization and nanomanufacturing.

Del Mar Photonics, Inc. product portfolio includes ultrafast laser oscillators and amplifiers based on Ti:Sapphire, Cr:Forsterite, Er- and Yb-doped fibers; autocorrelators, SPIDER and cross-correlator, femtosecond fluorescence up-conversion and transient spectroscopy pump-probe systems, CW single-frequency ring Dye/Ti:Sapphire lasers, NIR-MWIR-LWIR cameras, and optical and crystal components. Contact: Del Mar Photonics Sales Team, sales@dmphotonics.com.

DELTA Light and Optics

#6804

Venlighedsvej 4, Hørsholm, Denmark, 2970
45 72 19 4000; fax 45 72 19 4001
filters@delta.dk; www.delta.dk

A world leading supplier of coated optical filters since 1967. Our filters are Ultra Hard coatings manufactured on one glass substrate. This process secures unsurpassed environmental and optical stability, highest optical flatness and extreme durability. Choose from our broad range of existing fluorescence filter sets, bandpass filters, beam splitters, laser line filters and mirrors or request a quotation for custom design. Please contact, filters@delta.dk or visit www.delta.dk. Contact: Poul Svensgaard, Executive Vice President, psv@delta.dk; Lene Kloch, Sales Assistant, lkl@delta.dk.

Delta Optics Technologies Pte Ltd.

#6379

Block 51, #02-15/16 Ayer Rajah Crescent, Singapore, 139948
65 6779 7976; fax 65 6779 2792
kslee@deltaoptics.com; www.deltaoptics.com

New Product: Optics design and prototype; diamond cutting of optical inserts on hardened steel (with no nickel coating); produce lens and mirrors made of plastic, glass, crystal, aluminum, copper etc.; optical thin film coating.

Delta Optics Technologies is a Singapore company established in 2004. The company had successfully developed an enabling system for the "direct-cutting" of steel to mirror surface finish by a diamond tool, thereby eliminated the need of nickel coating on the optical inserts made of steel as usually does. Such inserts produced by the direct-cutting method have a much higher scratching resistance, have no porosity in their microstructure and do not subject to surface peeling during molding. They do not have any delaminating effect, therefore enable the mold to operate at relatively higher temperature necessary for the processing of high performance plastic materials. Further these inserts with no nickel coating would last three times longer than the coated ones. Delta Optics, in alliance with Wangi Industrial and T&C Plastic Moulding (both Singapore based companies), is offering full spectrum of optics manufacturing services to the industries. Contact: KamSung Lee, Director Sales and Marketing, kslee@deltaoptics.com; Dr. Xiang Dong Liu, Director, Technical, xdlu@deltaoptics.com.

DenseLight Semiconductors Pte Ltd.

#5052

6 Changi North St 2, Singapore, S498831
65 6415 4488; fax 65 6415 4468
info@denselight.com; www.denselight.com

DenseLight Semiconductors is a leading developer and manufacturer of InP-based optoelectronics devices and photonic solutions (integrating optoelectronics, fiberoptics and electronics) for photonic-sensing (fiber optic, industrial monitoring, environmental, chemical, homeland-security), biomedical imaging, telecom/datacom transmission and tests. Current products: Superluminescent LEDs, ELED, Ultra Narrow Linewidth laser diodes, ASE Broadband Sources (CW/Modulated) and Tunable Single-Frequency Laser Module. Contact: Lye-Hing Chua, Vice President Sales and Marketing, lhchua@denselight.com.

Deposition Sciences, Inc

#6255



3300 Coffey Ln, Santa Rosa, CA, 95462
707/573-6758; fax 707/573-6748
solutions@depsci.com; www.depsci.com

New Product: DSI's new durable film with low refractive index, meets rain and dust erosion requirements.

For over 20 years, Deposition Sciences, Inc. (DSI) has produced the most durable optical thin film filter coatings in the industry. DSI's coating capability ranges from the Ultraviolet (UV), through the visible (VIS), near infrared (NIR), midwave infrared (MWIR) and out to the far infrared (FIR). At the heart of these capabilities is DSI's patented MicroDyn® reactive sputtering technology enabling superior multilayer thin film coatings for optics, MEMS and other thin film nano-technologies. Contact: Bob Crase, Program Manager, craserj@depsci.com; Tatiana Goobanoff, Customer Service Supervisor, goobanofftn@depsci.com.

Diacut, Inc.

#6238

773 Highway 105, Palmer Lake, CO, 80133
719/481-4205; fax 719/488-0872
sales@diacut.com; www.diacut.com

Diacut is a customer-oriented manufacturer of resin bond Diamond blades. The high precision wheels are made to customer specifications and are used on high production machines such as K&S, MTI, ITI, Disco plus standard surface grinders. The blades are used for slicing and dicing, grooving and precision cut-off operations to grind glass, ceramics, quartz, sapphire, ferrite. Every customer, regardless of size, is treated with the same individualized attention and orders are shipped within days. Contact: Rene Furrer, Owner; Toni Furrer, Vice President of Sales.

Diamond Wire Technology

#1134



1605 S Murray Blvd, Colorado Springs, CO, 80916
719/570-1150; fax 719/570-1176
info@diamondwiretech.com; www.diamondwiretech.com

New Product: RTD 6400/6800 addresses thin wafer challenges while meeting high volume manufacturing requirements.

Diamond Wire Technology, LLC is the world's largest and oldest manufacturer of Diamond Wire and Diamond Wire Saws, with over 41 years experience. We make Diamond Wire from 140 micron to 380 micron diameter. Diamond Wire Technology, LLC has an extensive team of Design, Electrical and Software Engineers to accommodate a broad range of applications and needs. Contact: Brian Larabee, VP Sales and Marketing, brianl@diamondwiretech.com; Bryan Decker, Global Sales Manager, bryand@diamondwiretech.com.

DiCon Fiberoptics, Inc.

#6613

1689 Regatta Blvd, Richmond, CA, 94804
510/620-5000; fax 510/620-4100
info@diconfiber.com; www.diconfiber.com

New Product: Tunable White LED microscope illuminator for bright, durable Fiber optic or direct view illumination.

DiCon Fiberoptics designs and manufactures Fiber optic and LED Lighting products for Sensing, Video Distribution, Machine Vision and Defense applications. We offer compact, durable, extremely reliable products including Thin Film Filters and MEMS Tunable Filters, Switches, OCM and VOA. DiCon microscope illuminators and other LED lighting products provide specific wavelength spectra for medical and illumination applications powered by multi-chip arrays in tunable white, RGB or UV wavelengths. Contact: Quata Ocano, Director of Marketing, qocano@diconfiber.com.

Diemat, Inc.

#2037

SPIE Corporate Member

19 Central St, Byfield, MA, 01922
978/499-0900; fax 978/499-8484
sales@diemat.com; www.diemat.com

New Product: DM2700HC is a low stress, low-temp sealing glass with improved stability after thermal cycling.

Diemat produces high-performance materials for packaging semiconductors and photonics, replacing solder in many applications. Our adhesives offer unmatched thermal conductivity, up to 60 W/m-K, for semiconductor die attachment and heat sink bonding. Low-temperature sealing glasses (as low as 320°C) hermetically seal optical fibers, lids, windows and lenses to packages and are used in wafer-level packaging. Diemat is ISO 9001 registered and has a worldwide sales network. Contact: Kevin McLaughlin, Manager, Sales and Marketing, k-mclaughlin@diemat.com; Marie Roy, Sales Administrator, m-roy@diemat.com.

Diffraction Optics Ltd.

#6064

Unit 216-7 Photonics Centre, Hong Kong Science Park NT, Shatin, Hong Kong
852 2793 5976; fax 852 2793 1696
info@diffraction-optics.com; www.diffraction-optics.com

New Product: High precision diamond turned optics.

Diffraction Optics Ltd. is an independent professional supplier of precision optical systems and components with in-house design, development, tooling fabrication and molding capabilities. One of the principal leaders in the design, manufacture and production of optical components, modules and electro optical assemblies. High tech support to the medical, civil, industrial, scientific and thin film coating markets. Contact: Man Fok, Director, manfok@diffraction-optics.com; Kim Pak Leung, Engineering Manager, kpleung@diffraction-optics.com.

DILAS

#6015

SPIE Corporate Member

9070 S Rita Rd Ste 1500, Tucson, AZ, 85747
520/232-3480; fax 520/232-3499
sales@dilas-inc.com; www.dilas.com

DILAS, the diode laser company, delivers the most innovative technologies and advanced product solutions in the industry. DILAS designs, develops and manufactures high power, high brightness semiconductor laser components, modules and systems, including fiber coupled products for worldwide distribution for commercial and industrial applications. Contact: John Agnello, Director, Sales, j.agnello@dilas-inc.com.

Diopic GmbH

#1801

Bergstr 92A, Weinheim, Germany, 69469
49 6201 65040 00; fax 49 6201 65040 01
info@diopic.de; www.diopic.de

New Product: LRT - Extension for interferometric characterization of surfaces with large radii of curvature.

DIOPTIC supplies you with patented diffractive reference objectives (DFNLs) for high precision interferometric measurement of optical surfaces. Contact: Simon Aigner, Key Account Manager, aigner@diopic.de; Jean-Michel Asfour, Managing director, asfour@diopic.de.

Directed Energy Professional Society

#6367

PO Box 9874, Albuquerque, NM, 87119-9874
550/998-4910; fax 550/998-4917
cynnamon@deps.org; www.deps.org

Docter Optics, Inc.

#415

SPIE Corporate Member

1425 W Elliot Rd Ste A-105, Gilbert, AZ, 85233
480/844-7585; fax 480/844-7826
doi@docteroptics.com; www.docteroptics.com

New Product: Super wide angle lens Stilar® 2,8/8 for 1,2" sensorchips, Auto-Tessar® HDR lenses, Light Pipes.

Docter Optics GmbH, an ISO 9001:2000 certified OEM supplier, will be displaying many types of precision glass molded, ground and polished optical components from most glass materials, uncoated or coated, in sizes from 5mm to 165mm, including aspheric, free-form, lens arrays and spherical lenses; aspheric and free-form mirrors; prisms; light tunnels, special shapes; Stilar 2,8/8® super wide angle lens, Auto-Tessar® HDR lenses, Tevidon® CCD camera lenses; optoelectronic, optomechanic subassemblies. Contact: Bruce Nielsen, Vice President, doi@docteroptics.com; Frank Müller, Sales Manager, frank.mueller@docteroptics.com.

Dominar, Inc.

#5070

734 Aldo Ave, Santa Clara, CA, 95054
408/496-0508; fax 408/496-0910
dominar@sbcglobal.com; www.dominar-inc.com

New Product: Solderable metal coating for hermetic sealing, heat transfer, or bonding.

Dominar, Inc. specializes in the design and manufacture of optical thin film coatings. We coat crystals, AMTIR, and semiconductors, as well as glasses and silica, from UV to IR. We offer anti-reflection, high-reflection dielectric, and most metals. We quote on prototype or production quantities. Dominar offers expertise for fiber optic light guides and imaging, optical design and testing, and illumination engineering. Contact: John Ellis, COO, jellis@dominar-inc.com; Claudia Campos, Office Manager, dominfo@dominar-inc.com.



Product Locator Kiosk

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Photonics West Exhibitor Directory

DongWoo Optron Co., Ltd.

#6045

611-5 Maesan-ri, Opo-Eup, Gwangju-si, Gyungg Do, Korea, 464-893
82 31 765 0300; fax 82 31 765 0222
optron@optron.co.kr; www.optron.co.kr

New Product: Maple-X is a versatile photoluminescence mapping and thin film/coating measurement system.

DongWoo is a Research and Development and manufacturing company specialized in Photoluminescence Measurement Systems (e.g. Raman, Photoluminescence, Fluorescence, etc.). Wide range of products covers Monochromator, Spectrograph, Detectors, Lamps, Stack Gas Detectors and variety of optics. Whatever your research or development needs are you will find all required solution from DongWoo. Contact: Mr. DongHyun Kim, Director of Overseas Marketing and Sales, dos@optron.co.kr; Mr. Ian Jung, Overseas Marketing and Sales Manager, dos@optron.co.kr.

Doric Lenses Inc.

#1700

357 Franquet, Quebec, QC, Canada, G1P 4N7
418/877-5600; fax 418/877-1008
sales@doriclenses.com; www.doriclenses.com

The company is a manufacturer of high quality photonic components, like the world renowned doric™ gradient-index cylindrical lenses, acylindrical lenses, rods, axicons, spherical lenses, custom optics etc. In addition to a large portfolio of photonics components, Doric Lenses Inc. provides photonics contract manufacturing services (photonics assemblies) and full photonics supply chain management. Contact: Branka Prijovic, VP Sales, sales@doriclenses.com; Kemal, Sales Representative, kemal@doriclenses.com.

DPSS Lasers Inc.

#6050

2525 Walsh Ave, Santa Clara, CA, 95051
408/988-4300; fax 408/988-4305
www.dpss-lasers.com

New Product: DPSS Lasers Inc introduces the New Samurai UV Marking System utilizing DPSS' 355nm laser technology.

DPSS Lasers Inc. specializes in low cost, DPSS UV, "quasi-CW" lasers, 0.1 to 5 Watts, 355 nm with high peak powers and high rep rates that are ideal for marking and engraving materials such as glass, plastic and metals. Applications using our "Cold Laser" are Product Coding, Micromachining, Marking, Sapphire Scribing, ITO Removal, Semiconductor and Medical Packaging. Also available, the low cost New Samurai UV Marking system utilizing DPSS 355 nm laser technology. Contact: Alex Laymon, President, alaymon@dpss-lasers.com; Randy Kimball, Vice President Business Development, rkimball@dpss-lasers.com.

Draka Communications Optical Fiber

#6170

2512B Penny Rd, Claremont, NC, 28601
800/879-9862; fax 828/459-8267
fibresales@draka.com; www.drakafibre.com

New Product: BendBright-Elite ultra bend insensitive single mode fiber.

Draka is a leading global manufacturer of optical fiber and cable for the telecom, datacom and specialty fiber markets. Products include ultra bend-insensitive SM (BendBright-Elite), high data rate OM4 MM (MaxCap 550), and harsh environment fibers (radiation, high temp, high strength, H2). Other Draka Elite specialty fibers include erbium doped fibers, PCS, PCF, PMF, DC fibers/modules, tight buffered fibers, ribbonized fibers as well as custom optical fibers to meet your application needs. Contact: Ryan Chappell, North American Fiber Business Manager, ryan.chappell@draka.com; Olaf Storaasli, Product Manager, Optical Fiber, olaf.storaasli@draka.com.



EXHIBITION MAP/RESTAURANT GUIDE SPONSOR

DRS Technologies, Inc.

#5039



3520 U.S. Hwy 1, Palm Bay, FL, 32905
321/309-0433; fax 321/956-0126
jdeeter@drs-rsta.com; www.drs.com

DRS Technologies, headquartered in Parsippany, NJ, is a leading supplier of integrated products, services and support to military forces, intelligence agencies and prime contractors worldwide. The company is a wholly owned subsidiary of Finmeccanica S.p.A., employing more than 70,000 people worldwide. For more information about DRS Technologies, please visit the company's website at www.drs.com.

Dyna Technologies, Inc.

#5117



1670 Tropic Park Dr, Sanford, FL, 32773
407/330-6423; fax 407/330-6121
information@dti-fla.com; www.dti-fla.com

New Product: A compact press designed for compression molding of glass optical elements for product development.

Dyna Technologies, Inc is a manufacturer of a precision glass molding press for production of optical elements such as aspheric lenses. The press features a fully enclosed design for vacuum and inert gas purging operation. Programmable feedback controls provide high precision position, force, heating and cooling profiles throughout the molding process. Contact: Howard Painter, President, hpainter@dti-fla.com; Brent Binkley, Director of GMT, bbinkley@dti-fla.com.

Dynamics Research Corp.

#5081

50 Concord St, Wilmington, MA, 01887-2179
978/658-6100; fax 978/657-7765
metsales@drc.com; www.drc.com

New Product: Metrigraphics family of micro-induction coils are used for RF signal and/or power induction.

Since 1960, Metrigraphics, a precision manufacturing division of DRC, is a leading worldwide supplier of high precision electroformed custom components for designers and builders of photonic devices and instruments. We produce devices for control, test and measurement applications in medical and analytical instrumentation on multiple substrates, both coated and un-coated. Our process oriented team can handle the assembly requirements for "next level assemblies" with precision. Contact: Diane Black, Account Manager, dblack@drc.com; Fred Pitman, Director of Marketing and Sales, fpitman@drc.com.

Dynasil Corp.

#327



385 Cooper Rd, West Berlin, NJ, 08091-9145
856/767-4600; fax 856/767-6813
info@dynasil.com; www.dynasil.com

Dynasil member companies include EMF and Optometrics Corporations, in addition to Dynasil/Fused Silica. We provide Fused Silica and ULE substrates, custom optical coatings, optical components, sub-assemblies and assemblies to fabricators and OEMS. We are an authorized distributor of Corning 7980 HPFS, including excimer grades, in machined blank or partial boule/ingot forms for optics, lasers, electronic and semiconductor applications. Fused quartz, Corning ULE also available. Contact: Bruce Leonetti, Vice President Marketing and Sales, sales@dynasil.com; Michael Orlando, Inside Sales.

DynaVac

#6603

110 Industrial Park Rd, Hingham, MA, 02043
781/740-8600; fax 781/740-9996
sales@dynavac.com; www.dynavac.com

DynaVac manufactures high vacuum systems for optical coating, thermal evaporation, and sputtering applications. Custom-engineered solutions are offered for unique process and production requirements, i.e. large area, inline, and web-handling deposition. Systems are fully automated and well suited for production environments. Full service installation and technical support is provided. Contact: Liz Claflin, lclaflin@dynavac.com; Tom Foley, President, tfoley@dynavac.com.

Dyntest Technologies GmbH

#1801

Bahnhofstr 110, Grassau, Germany, 83224
49 8641 6960; fax 49 8641 696920
sales@dyntest.de

New Product: The DM-8150 is a Scribe and Break System for the singulation of III/V and related materials.

DynTest Technologies' precision systems excel over conventional scribe/breakers as they have been designed as modular and fully automated production units. The systems serve the customer from R&D all the way to high volume device manufacturing and from process development to high quality and throughput. Contact: Helge Luesebrink, Managing Director Sales and Marketing, Helge.Luesebrink@dyntest.de.

e2v

#1338

SPIE Corporate Member

106 Waterhouse Ln, Chelmsford, United Kingdom, CM1 2QU
44 1245 493 493; fax 44 1245 492 492
enquiries@e2v.com; www.e2v.com

e2v has over 30 years of experience in the design and manufacture of CCDs, EMCCDs, CMOS image sensors and line scan image sensors for a variety of markets with capabilities including back-illumination, low noise, high quantum efficiency and sensitivity to photon wavelengths from X-ray through near-IR. e2v routinely provides image sensors for the most demanding applications in space, astronomy and scientific imaging as well as medical, industrial machine vision and security. Contact: Ivan Noy, Marketing Manager - Science, ivan.noy@e2v.com.

Eagleyard Photonics GmbH

#1627

Rudower Chaussee 29, Berlin, Germany, 12489
49 30 6392 4520; fax 49 30 6392 4529
michael.kneier@eagleyard.com; www.eagleyard.com

Eagleyard Photonics is a leading provider of high power laser diodes with wavelengths ranging from 650 nm to 1120 nm. With our competence and know how we close the gap between research and industry and link both worlds together. In turning technology into mature and reliable products we enable new applications for such laser diodes and help our customers to develop new markets. Contact: Philip Crowley, Sales, phil@markettechinc.net.

Ealing Catalog Inc.

#440


3845 Atherton Rd Ste 1, Rocklin, CA, 95765
916/435-4230; fax 916/435-4234
slee@ealingcatalog.com; www.ealingcatalog.com

New Product: ROG's, Lenses, Mirrors, Filters, Stages, Optic Mounts, Positioning Equip and Microscopes.

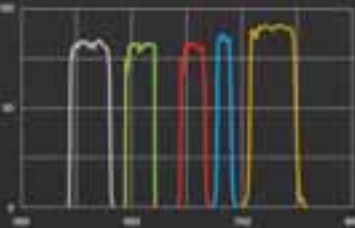
Ealing is your source for high-quality optics and opto-mechanics. Introducing a new line of premium Beck-Iroscope Microscopes. Ealing provides a comprehensive catalog of photonics products and has been serving the industry for over 50 years. Most products are carried in stock for immediate delivery. Call 1-800-295-3220; It is our privilege to serve you. Contact: Mike Fischer, Product Manager, mfischer@ealingcatalog.com; Shelly Lee, Service Manager, slee@ealingcatalog.com.

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Phone: +49 (0) 36 41 / 35 29 30
E-mail: info@mso-jena.com or visit

www.mso-jena.com

Photonics West Exhibitor Directory



CONFERENCE BAG SPONSOR

Edmund Optics

#1019

SPIE Corporate Member

101 E Gloucester Pike, Barrington, NJ, 08007-1380
856/547-3488; fax 856/573-6233
sales@edmundoptics.com; www.edmundoptics.com

New Product: New coating capabilities offer high precision coatings with excellent uniformity and repeatability.

Edmund Optics, leading manufacturer of custom optics and off-the-shelf optical components for over 65 years, designs and manufactures an array of multi-element lenses, coatings, imaging systems and opto-mechanical equipment. EO products are used in applications ranging from biomedical and military to high-speed factory automation. EO's state of the art manufacturing and global distribution network position it as the world's largest supplier of optical components. Contact: Marisa Edmund, Vice President of Marketing and Communication, Medmund@edmundoptics.com; Allan Kreutzer, Vice President of Global Sales, Akreutzer@edmundoptics.com.

EDP Sciences

#S4

17 Ave du Hoggar, Courtaboeu Les Ulis Cedex, France, 91944
33 1 69 18 75 75; fax 33 1 69 86 07 65
edps@edpsciences.org; www.edpsciences.org

EDP Sciences (Édition Diffusion Presse Sciences) works closely with the scientific world. It is involved in the communication and dissemination of scientific information specialist audiences (researchers, engineers, students etc.) and non-specialist audiences alike (general public, decision makers, teachers, etc.). EDP Sciences produces and publishes international journals, books and Internet sites with a predominantly scientific or technical content. Contact: Stephanie Dreux, Journals' Sales Department, stephanie.dreux@edpsciences.org; Nathalie Matelot-Lecrosnier, Responsible for journals communication, nathalie.lecrosnier@edpsciences.org.

EDT-Engineering Design Team, Inc.

#6363

1100 NW Compton DR Ste 306, Beaverton, OR, 97006
503/690-1234; fax 503/690-1243
sales@edt.com; www.edt.com

EGIDE

#6365

4 Washington St, Cambridge, MD, 21613
410/901-6100; fax 410/901-6250
sales@egideusa.com; www.egideusa.com

Egide designs and manufactures hermetic glass-to-metal and ceramic-to-metal packaging for telecommunications, industrial, military and aerospace applications. Products include: 14 pin butterflies, minidil and various plug-in and flat pack style packages. Our products protect optical devices and circuits that control wave monitoring, guided missiles, flight control operations and more. Contact: Kirk Williamson, Sales Manager, kirk.williamson@egideusa.com; Jamie Versis, Customer Service, jamie.versis@egideusa.com.

EKSMA Optics

#1445

Mokslininku str 11, Vilnius, Lithuania, 08412
370 5 2729900; fax 370 5 2729299
info@eksmaoptics.com; www.eksmaoptics.com

EKSMA OPTICS is a global supplier and manufacturer of precision optical components with high power coatings for laser applications, laser and nonlinear crystals for applications in UV, VIS, IR ranges and opto-mechanics mounts. EKSMA OPTICS manufactures flat optics and LBO, K*DP, ZnGeP2 nonlinear crystals in our polishing facilities and quality control labs. Contact: Daugirdas Kuzma, Director, Sales and Marketing, Lucian Hand, President, Altos Photonics, sales@altosphotonics.com.

EKSPLA UAB

#1445

SPIE Corporate Member

Savanoriu Av 231, Vilnius, Lithuania, 02300
370 5 2649629; fax 370 5 2641809
sales@ekspla.com; www.ekspla.com

Manufacturer of solid state picosecond nanosecond lasers, laser systems, laser workstations and power supplies for science and industry. Main products are mode-locked, q switched, custom designed lasers, OPG/OPA/OPO and complete systems for spectroscopy, LIDAR, material research as well as industrial grade diode pumped solid state lasers for material processing. Contact: Kestutis Jasiunas, Chief Executive Officer, Lucian Hand, President, Altos Photonics, sales@altosphotonics.com.

Electro Optical Components Inc.

#722

5460 Skylane Blvd, Santa Rosa, CA, 95403
707/568-1642; fax 707/568-1652
www.EOC-INC.COM

New Product: FEMTO ultra low noise high gain amplifiers. IMM Photonics Triplex fiberoptic modules.

Electro Optical Components (EOC) provides technologically advanced components for laser and optoelectronic systems from the UV to the far IR. Our products include thermopile and UV detectors and arrays; IR and visible laser diodes and modules; optics and coatings (including CO2); amplifiers and photoreceivers; interference filters (IR to UV); E-O modulators; IR sources and many other key E-O components. Contact: Bill Bolster, info@eoc-inc.com; David Yen.

Electro Optics Magazine

#6155

8-10 Whiteladies Rd, Clifton, Bristol, United Kingdom, BS8 1PD
44 117 906 4075; fax 44 117 973 2022
sales@europascience.com; www.europascience.com

Electro Optics is the number one magazine for Europe's photonics market. If you need to do business in Europe, no other magazine is better positioned or better able to help you achieve your goals. Contact: Dominic Light, Business Development Manager, dominic.light@europascience.com; Alex Sullivan, Publishing Director, alex.sullivan@europascience.com.

Electron Tubes

#1638

100 Forge Way Unit F, Rockaway, NJ, 07866
973/586-9594; fax 973/586-9771
sales@electron tubes.com; www.electron tubes.com

New Product: Electron Tubes is pleased to introduce the ADIT range of low cost, high quality photomultipliers.

Electron Tubes designs and manufactures photomultiplier tubes, housings and electronic signal processing modules. Photomultipliers are available in diameters from 3/4" to 8". Special tubes are available for use at cryogenic temperatures and with ultra low radioactivity glass for high energy and cosmic ray physics experiments. Ruggedized tubes are available for oil well logging and space flight applications. Electron Tubes welcomes your inquiry for special tubes for non-standard applications. Contact: Paul Davison, Sales Manager, paul@electron tubes.com; Jules Green, Sales Manager, jules@electron tubes.com.

Electro-Optical Industries, Inc.

#6623

859 Ward Dr, Santa Barbara, CA, 93111-2960
805/964-6701; fax 805/967-8590
lindstrom@electro-optical.com; www.electro-optical.com

New Product: VIP 100-Visible Image Projector. Complete test system for evaluation of your visible cameras.

World's leading supplier of infrared and visible test and calibration products. Contact: Brent Lindstrom, Sales Manager, lindstrom@electro-optical.com.

Electro-Optical Products Corp.

#6212

PO Box 650441, Fresh Meadows, NY, 11365
718/997-8100; fax 718/997-8102
www.eopc.com

Electro-Optical Products Corp. is a manufacturer of components and sub-systems for light, plasma and laser light: Scanners and Deflectors (resonant scanners, XY systems, AO and EO devices). Choppers and Modulators (fixed and variable frequency: tuning fork choppers, Q-switches, Pockels cells, shifters, AOTFs, optical isolators and Faraday rotators) Optical Shutters and Laser Safety Shutters. For industrial, scientific, medical, aerospace and military applications worldwide. Contact: sales@eopc.com.

Electro-Optical Systems, Inc.

#3014

1288 Valley Forge Rd Ste 49, Phoenixville, PA, 19460
610/935-5838; fax 610/935-8548
sales@eosystems.com; www.eosystems.com

New Product: EOS has expanded its specialty detectors: larger quads and position sensors, more 2-color options.

EOS manufactures photodiodes and detectors covering the UV-vis to LWIR spectral ranges. Materials include silicon, InGaAs, Ge, InAs, InSb, PbS, PbSe, HgCdTe. A complete line of integrated receivers and support electronics is also offered. Contact: Joyce Maddox, Sales Mgr, sales@eosystems.com; William Pinkston, President, wp@eosystems.com.

Electro-Optics Technology, Inc.

#1916

5835 Shugart Ln, Traverse City, MI, 49684
231/935-4044; fax 231/935-4046
sales@eotech.com; www.eotech.com

New Product: EOT will be displaying a 2.0µm detector with <1ns rise time and <1ns fall time.

EOT sells Faraday isolators to eliminate optical feedback in a variety of laser systems with a special emphasis on high power or high energy lasers. Both PI and PM isolators are available that are either free space or fiber coupled. Custom Faraday isolators are also available. EOT also makes photodetectors for measuring the time domain response or frequency response of pulsed, mode-locked or externally modulated lasers in the 190-2300nm region with rise times as low as 35ps.

Electrophysics Corp.

#2016

373 Rte 46 W, Fairfield, NJ, 07004-2442
973/882-0211; fax 973/882-0997
info@electrophysics.com; www.electrophysics.com

Electrophysics, a leader in infrared imaging, will exhibit its wide range of high performance infrared cameras for imaging in the spectral range 1-20 microns for use in a variety of applications including laser beam diagnosis, high-speed testing and a host of other applications that demand high quantum efficiency and accuracy. In addition, the company will also feature data acquisition and imaging analysis software solutions as well as a range of development tool kits for custom integration. Contact: Chris Alicandro, Director of Sales - Infrared Products, calicandro@electrophysics.com; Art Stout, Vice President, astout@electrophysics.com.



Free Popcorn

Popcorn carts will be located in the back of Exhibition Hall 3 and South Hall 1 and will be open from 11:00 am to 4:00 pm, Tuesday through Thursday.

Elforlight Ltd.

#5095

4B Brunel Close, Daventry Northants, United Kingdom, NN11 8RB
44 1327 300069
sales@elforlight.com; www.elforlight.com

New Product: Compact, cost effective, ultrafast laser. SWIFT emits 250fsec pulses at 1040nm at 100MHz.

Elforlight manufactures a range of cutting edge Diode Pumped Solid State lasers, CW, modelocked and q-switched, IR to UV. Including SWIFT femtosecond lasers: directly diode pumped solid-state lasers offer cost effective alternatives to Ti-Sapphire. SPOT lasers offer short q-switched pulses (<2ns) at up to 50kHz applications include confocal and multi photon imaging, spectroscopy, MALDI mass spectrometry, LIDAR, holography, flow visualization, solar cell processing and rapid prototyping. Contact: Keith Oakes, info@elforlight.com; Steve Ebdon, sebdon@elforlight.com.

Elliot Scientific Ltd.

#1041



3 Allied Business Ctr, Coldharbour La, Harpenden Herts, United Kingdom, AL5 4UT
44 1582 766 300; fax 44 1582 766 340
sales@elliotscientific.com; www.elliotscientific.com

New Product: Multiple spot optical tweezers.

Elliot Scientific manufactures fiber launch and waveguide alignment systems with manual or piezo actuators, miniature micropositioners, precision mirror mounts, optomechanical components and laser tweezers. We can also supply custom components and OEM assemblies to your specifications. We will also be exhibiting the range of diode pumped lasers and laser drivers from M Squared Lasers. Including single frequency Ti:sapphire lasers, IR and Terahertz sources and high power diode laser drivers. Contact: Colin Freeland, Photonics Product Manager, colin.freeland@elliotscientific.com; David Welsh, Sales Director, david.welsh@elliotscientific.com.

EM4, Inc.

#5128



7 Oak Park, Bedford, MA, 01730
781/275-7501; fax 781/275-7569
sales@em4inc.com; www.em4inc.com

EM4, the premiere US volume manufacturer of high quality and reliability, optoelectronic components. Featured products; high power (to 200mW) C and L band DFB lasers, high power (10W) Multimode pump lasers (780nm-980nm), high power (800mW) SM pump lasers (915nm-1064nm), Tranceivers, RF links and receivers to 20GHz and beyond, high power fiber isolators and splitters (CW>10W) and Acusto-Optic Modulators (1060nm-1550nm). Contact: Ed McCartin, Director of Defense Sales, emccartin@em4inc.com; Winn Gatewood, CSR, wgatewood@em4inc.com.

EMCO High Voltage Corp.

#247

70 Forest Products Rd, Sutter Creek, CA, 95685
209/267-1630; fax 209/267-0282
sales@emcohighvoltage.com; www.emcohighvoltage.com

Innovative High Voltage Power Supplies provide high performance in miniature, cost effective packages. Standard, off-the-shelf products range from ultra-miniature high voltage converters occupying 0.125 cubic inches to precision, multi-output, rack-mount high voltage systems. A complete line of RoHS compliant products are available. Contact: Sales.

Photonics West Exhibitor Directory

EMCORE Corp.



2015 Chestnut St, Alhambra CA 91803
626/293-3400; fax: 626/293-3428
specialty-sales@emcore.com; www.emcore.com

New Product: EMCORE's Spectroscopy Platform is designed for scanning complex compounds to precise specifications.

EMCORE Corporation is a leading provider of compound semiconductor-based components and subsystems for the broadband, optical transport, satellite and solar power markets. EMCORE's microwave photonics products enable unprecedented miniaturization and cost reduction in a wide variety of commercial and military applications including lasers, modulators, spectrometers, sensors, and diagnostic instruments. Contact: Ron Logan, Director of Specialty and Satcom Products, Ron_Logan@emcore.com; Stephen Wright, Corporate Communication Specialist, Stephen_wright@emcore.com.

EMD Chemicals Inc.

#6157

480 S Democrat Rd, Gibbstown, NJ, 08027
856/423-6300; fax 856/423-0529
effects@emdchemicals.com; www.emdchemicals.com

We are an experienced manufacturer of high purity materials. We have developed Patinal® evaporants, with chemical, optical, electrical and mechanical properties suitable for evaporation. They are supplied as granules, tablets, discs or powders, to best suit the application. Contact: George Zeiter, Sales Manager, george.zeiter@emdchemicals.com.

Emerging Material Technologies, Inc.

#6625

1491 Littlefield Ct, Lake Forest, IL, 60045
847/779-0958; fax 847/295-0585
office@emtinc.us; www.emtinc.us

Emerging Material Technologies (EMT), Inc. is a US based company to serve the raw material needs of crystal growers to produce the most cost efficient, high yield quality crystals. The Company has developed a proprietary, patented plasma enhanced method of densifying starting materials, including, aluminum oxide, for crystal growth. It is the only one company producing the highest purity, 99.999%, raw material for the crystal growth industry. Website: www.emtinc.us. Contact: Kristine Carlos, Sales Manager, sales@emtinc.us; Radion Mogilevsky, President, rnm@emtinc.us.

EMF Corp.



239 Cherry St, Ithaca, NY, 14850
800/456-7070; fax 800/456-3227
info@emf-corp.com; www.emf-corp.com

New Product: Ion-assisted electron beam deposition coatings up to 20 layers and 80 inches in diameter.

We are a thin film coating house for optics up to 3M. Our designs enable customized solutions for production and prototype projects. Large chambers handle volume production for automotive, aerospace and medical industries. We coat mirrors for UV-VIS and IR, AR coatings for the VIS and NIR, plate beam splitters for VIS and custom filters. We are skilled at handling metal, glass and plastic optics. Our cool processes are great matches for 20th wave and plastic optics. We are a Dynasil family company. Contact: Joe Howe, Sales and Marketing Manager, joe@emf-corp.com; Carol Schneider, Account Manager, carol@emf-corp.com.

#327

Empire West Plastics

#5116

PO Box 511, 9270 Graton Rd, Graton, CA, 95444
707/823-1190; fax 707/823-8531
ed@empirewest.com; www.empirewest.com

New Product: None-Outgassing PET-G optics containers for high value optics.

Empire West Plastics has been manufacturing precision optics packaging for the high-value optics industry for over 30 years. Contact: Ed Davis, President, ed@empirewest.com.

Enablence Technologies

#6608

400 March Rd, Ottawa, ON, Canada, K2K 2H4
510/226-8900; fax 510/226-8933
componentsales@enablence.com; www.enablence.com

Enablence designs, manufactures and sells optical components, subsystems and systems globally. Our products apply proprietary Planar Lightwave Circuit (PLC) technology to integrate multiple components into a single optical chip to reduce footprint and cost. Products for access, metro and long-haul include transceivers, ROADM, AWG chips/modules, channel monitors, VMUX, TODC, VOA and photodiodes. Services include silica-on-silicon manufacturing, III-V wafer processing, and flip chip die bonding. Contact: Fang Wang, Director, Sales, componentsales@enablence.com.

Energetiq Technology, Inc.

#6622

7 Constitution Way, Woburn, MA, 01801
781/939-0763; fax 781/939-0769
info@energetiq.com; www.energetiq.com

New Product: EQ-1000 LDLS™ Laser-Driven Light Source DUV-VIS light source is high brightness - 170nm to visible.

Energetiq Technology, Inc. is a manufacturer of advanced short wavelength light products. Energetiq products include the EQ-10 Electrodeless Z-Pinch™ Extreme Ultraviolet (EUV) light Source producing power of 10W into 2pi; at 13.5nm for metrology and research. Energetiq has recently introduced a novel new technology for broadband DUV/VIS/NIR high brightness light source. The EQ-1000 LDLS™ is a Laser-Driven Light Source that has a repeatable long life stable output. Contact: Debbie Gustafson, VP of Sales, info@energetiq.com; Paul Blackborow, info@energetiq.com.

Engineered Surface Finishes, A Group of Cabot Microelectronics Corp.

#119



870 N Commons Dr, Aurora, IL, 60504
630/375-6674; fax 630/375-5594
engineering@ensurfin.com; www.ensurfin.com

New Product: ScatterStop™ Low scatter aluminum mirrors.

Since 1949, Surface Finishes has been a leader in precision lapping grinding and optical polishing techniques specializing in flat, cylindrical, perpendicular and parallel surfaces with extremely demanding geometry. These capabilities produce Angstrom level tolerances on components such as: mirrors for optical imaging and scanning, air bearings, vacuum chucks, optical disc molds, large area reference surfaces and custom gauging. Free engineering advice for your most challenging applications. Contact: David Patterson, Account Manager, david_patterson@cabotcmp.com; Mark Drzewiecki, Executive Vice President Applied Technology, mark_drzewiecki@cabotcmp.com.

Engineering Synthesis Design, Inc.

#414

SPIE Corporate Member

310 S Williams Blvd Ste 210, Tucson, AZ, 85711
520/296-3068; fax 520/296-2897
eadmin@engsynthesis.com; www.engsynthesis.com

ESDI is a globally recognized leader in providing innovative surface and wavefront metrology solutions for astronomical, aerospace, bio-medical, optical fabrication, and production metrology applications. ESDI products include the world-renowned IntelliWave software; Intellium Fizeau, Shearing and Point-Diffraction Interferometers (classical and vibration-insensitive); Interferometer Accessories, Upgrades, and Training; and Custom Metrology Solutions. Contact: Donald A. Pearson II, Director, Sales and Marketing, don.p@engsynthesis.com; Christina White, Sales and Marketing - Administrative Assistant, christina.w@engsynthesis.com.

EOLITE Systems

#1617

11 Ave Canteranne, Pessac, France, 33600
33 5 56 46 45 50; fax 33 5 56 46 24 35
contact@eolite.com; www.eolite.com

New Product: First 7W UV Fiber Laser. <10ns pulses and high PRF (up to 200kHz). Ideal for micromachining.

EOLITE Systems develops and manufactures high power pulsed fiber lasers for a variety of fine-technology micro-machining applications, including cutting, engraving, ablation, drilling, annealing, printing, scribing, patterning... Power levels up to 150W and pulse energies up to 2mJ with short 1-nanosecond pulses at 1030nm, 515nm and 343nm. Principal advantages are better marking and deep-engraving quality due to short pulse duration and faster speed processing with high peak power pulses. Contact: David Horain, International Sales Manager, david.horain@eolite.com; Philippe Metivier, Chief Executive Officer, philippe.metivier@eolite.com.

Eospace, Inc.

#6292

8711 148th Ave NE, Redmond, WA, 98052
425/869-8673; fax 425/869-8872
info@eospace.com; www.eospace.com

EOSPACE is the leader in design and manufacturing lithium niobate-based electro-optic devices and large-scale optical ICs. Guided-wave electro-optical modulators, switches, and ASIC optical ICs from EOSPACE are commonly characterized as ultra-low-loss (less than 2 dB), very-wide-bandwidth, and very-high-extinction ratio: Broadband intensity and phase modulators; High-speed optical polarization controller; NxN high-speed optical switches and Custom electro-optic ICs. Contact: Ed Miao, Customer Relations, ed.miao@eospace.com; Chung-Ping Chien, Vice President, Business, cpchien@eospace.com.

EPIGAP Optoelektronik GmbH

#1227

Köpenicker Str 325 b Haus 210, Berlin, Germany, 12555
49 30 6576 2543; fax 49 30 6576 2545
sales@epigap.de; www.epigap.de

New Product: InGaAs-LEDs with spectral range 1060 up to 1720 nm, Spectral selective photodiodes.

EPIGAP Optoelektronik GmbH, a member of Jenoptik, is your partner for production of custom specific chips for LEDs and photodiode applications. Starting from Liquid Phase Epitaxy, chip production, dicing and 100% chip testing, classifying and sorting our technical equipment covers all processing steps in our class 10,000/100 clean room facility. Besides we offer development and series production of customer-specific modules and sensors. Contact: Matthias Gamp, Director Marketing and Sales, gamp@epigap.de; Antje Thamm, Product Manager, thamm@epigap.de.

SPIE Advanced Lithography



Innovation at Work

Join over 4,000 of your colleagues at the epicenter of semiconductor lithography. You'll see and hear the latest trends, breakthroughs, and research that will shape the direction of the semiconductor industry—and your company's performance—for years to come.

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San Jose Convention Center
San Jose, California, USA



Photonics West Exhibitor Directory

Epitaxial Technologies, LLC

#6334

1450 S Rolling Rd, Baltimore, MD, 21227
410/455-5594; fax 410/455-5595
www.epitaxialtechnologies.com

Epitaxial Technologies develops and produces breakthrough sensor products including photon counting photodetector arrays and ultrasensitive photoreceivers with widespread applications in free-space lasercomm, ladar and infrared imaging for missile defense, homeland security and commercial applications. Contact: Olaleye A. Aina, President, oaina@epitaxialtechnologies.com.

EpiWorks, Inc.

#6086

1606 Rion Dr, Champaign, IL, 61822
217/373-1590; fax 217/373-1591
sales@epiworks.com; www.epiworks.com

New Product: EpiWorks offers leading III-V solar cell wafer growth.

EpiWorks is the leading developer and manufacturer of III-V epitaxial wafers for lasers and photodetectors. Our products include high-power AlGaAs/GaAs and Al-free edge-emitting and VCSEL laser wafers (635nm - 11xxnm) and InP-based laser wafers (1200nm - 1900nm). In addition to high-quality manufacturing, our business model includes high-level customer interaction and co-development. Contact: David Ahmari, Hari Balasubramaniam.

Epix, Inc.

#5133



381 Lexington Dr, Buffalo Grove, IL, 60089-6934
847/465-1818; fax 847/465-1919
epix@epixinc.com; www.epixinc.com

New Product: New 8 camera image capture system using two frame grabbers - all in one computer.

EPIX, Inc. designs and manufactures frame grabbers, cameras, image acquisition and processing software, camera kits, and video to disk computer systems for machine vision, medical imaging, and high speed video analysis applications. We provide superior customer support from the initial purchase decision through image analysis. We can create custom cameras, frame grabbers, and software for your application. Contact: Charlie Dijk, Sales Manager, cad@epixinc.com.

Epner Technology, Inc.

#3011



78 Kingsland Ave, Brooklyn, NY, 11222-5603
718/782-5948; fax 718/963-2930
info@epner.com; www.epner.com

Custom designed infrared lightpipes, electroformed IR radiation shields and cold shields. Low-emissivity Gold and Laser Black® an inorganic non-outgassing coating that some say, "Actually swallows light". Also a broad range of optical fabrication and coating technologies will be displayed with free samples of Laser Gold®, the world's standard for a rugged IR reflective coating. Contact: David Epner, President, David@epner.com; Paul Brancato, General Manager, Paul@epner.com.

Equipment Acquisition Resources, Inc.

#6264



555 S Vermont St, Palatine, IL, 60067
847/705-7636; fax 847/705-7685
sales@eartechology.com; www.eartechology.com

New Product: Leading service provider for electronic materials abrasive technology.

EAR Technology is a leading service provider for electronic materials abrasive technology, maintaining the world's largest inventory of secondary market equipment for the photonics industry. EARBid is an online auction service that specializes in the remarketing and selling of semiconductor equipment. We have extensive experience in managing the disposition of surplus capital assets for the photonics industry. Contact: Mark Anstett, President, Marka@eartechology.com; Bruce Costello, Director Auction Services, Bruce@earbid.com.

Evans Analytical Group

#5077

810 Kifer Rd, Sunnyvale, CA, 94086
408/530-3500; fax 408/530-3501
marketing@eaglabs.com; www.eaglabs.com

EAG is the leader in surface analysis, materials characterization and trace elemental analysis. We offer over 30 analytical techniques/services supported by 150 major instruments via 21 locations worldwide. Techniques available: SIMS, TOF-SIMS, XPS/ESCA, Auger, SAM, Auger Defect Review, FTIR, GDMS, IGA, ICP-OES, LA-ICP-MS, LEXES, TEM/STEM, SEM/EDS, FIB, TXRF, XRD, XRF, XRR, AFM/SPM, RBS, NRA, HFS, PIXE, Ion Channeling, micro Raman, GC/MS, Chip Decapsulation, FIB Circuit Edit, ESD and Latchup. Contact: Ray Caron, Director, Corporate Marketing Communications, rcaron@eaglabs.com; Jim Norberg, Operations Coordinator, SIMS/OEM Services, operations.desk@eaglabs.com.

Evaporated Coatings, Inc.

#430

2365 Maryland Rd, Willow Grove, PA, 19090-1708
215/659-3080; fax 215/659-1275
sales@evapcoat.com; www.evapcoatings.com

ECI offers a complete variety of thin film coatings for glass, metals, polymers, crystals and semiconductor materials. Designs offered include high performance anti-reflection, beamsplitters, LWP/SWP filters, band pass filters, low-reflection attenuation coatings, ITO, non-polarizing beamsplitters, solderable films, dielectric and metal mirrors. We utilize IAD, APS and IBS deposition. We deposit films for use from 200 to 10 microns. Contact: Patrick Wenrich, Sales Engineer; Stephen Schaffer, Vice President, sschaffer@evapcoat.com; Linda Baier, lbaier@evapcoat.com.



METER BOARD SPONSOR



Evatec NA

#6331

150 Dow St Tower 4 4th Fl, Manchester, NH, 03101
603/669-9656; fax 603/606-7043
info@evatecnet.com; www.evatecnet.com

New Product: New Radiance and MSP sputter platforms and PDS plasma source for precision optics.

As home of the Balzer BAK, Evatec builds box coaters from 0.5 to 1.4 meters for precision optics, optoelectronics and semiconductors. With the addition of new plasma source technologies for enhanced evaporation processes plus dedicated batch and cluster sputter tools we offer complete process solutions for optical thin film applications. Please contact our local Sales and Service office in New Hampshire for assistance. Contact: Allan Jaunzens, Marketing Manager, allan.jaunzens@evatecnet.com; Doris Saxer, Management Assistance, doris.saxer@evatecnet.com.

Plan to Attend

FREE Exhibitor Product Demonstrations

Refer to pages 8-16 for complete time, schedules, and locations.

EVD, Agency for International Business and Cooperation #6270

PO Box 20105, The Hague, Netherlands, 2500 EC
31 70 7788030; fax 31 70 3858135
info@evd.nl; www.evd.nl

EVD is an agency of the Netherlands Ministry of Economic Affairs. Its mission is to promote the international presence of Dutch companies and institutes in foreign markets. With its wide-ranging network and knowledge base, the EVD is able to develop products and services that meet the needs of its customers and clients. Contact: Lennart Knot, Account Manager, knot@evd.nl.

EXALOS AG #6168

SPIE Corporate Member

Wagistr 21, Schlieren, Switzerland, 8952
41 43 444 6090; fax 41 43 444 6099
sales@exalos.com; www.exalos.com

EXALOS, an ISO 9001:2000 certified company, is developing and selling advanced Superluminescent Light Emitting Diodes (SLEDs) for medical imaging (OCT), fiber optic gyroscopes, fiber optic test equipment and sensors. EXALOS SLEDs operate with wavelengths ranging from 650 to 1700 nm, with optical bandwidths up to 190 nm and with output powers up to 50 mW. EXALOS's portfolio of SLEDs provides customers with the optimum balance of price, time to market, performance and size. Contact: Gene W. Covell, Vice President Sales, covell@exalos.com; Bernd Nestmeier, European Sales Manager, nestmeier@exalos.com.

Excell Technology #5115, 6297

SPIE Corporate Member

1001 Varian St, San Carlos, CA, 94070
650/592-6224; fax 650/592-6684
www.excelltechnology.com

Excell is a seller and quality rebuilder of double side lappers and polishers, single side lappers and polishers, grinders, all types, saws, slicers, semi equipment, etc. Rebuilding to new OEM specs. Software engineering, process engineering and rebuilding services. Excellent 30 year track record. Large selection in stock in our San Francisco Bay Area Facility. Contact: David Hodges, General Manager, dhodges@excelltechnology.com; Valerie Defigueiredo, Administration, val@excelltechnology.com.

◆◆◆◆◆
◆ EXHIBITION MAP/RESTAURANT GUIDE; CONFERENCE BAG INSERT SPONSOR

Exciton, Inc. #6280

PO Box 31126, Dayton, OH, 45437-0126
937/252-2989; fax 937/258-3937
info@exciton.com; www.exciton.com

As Exciton celebrates 35 years in the Laser Dye industry, we will continue to offer the widest selection of laser dyes, including ultraviolet dyes, visible and near-infrared dyes, mode-locking and q-switch dyes, surfactants, solvents and triplet state quenchers. Specialty dyes for other opto-electronic applications are available including dyes for bio-tagging, optical filters, photo resists, DVD's, laser eye protection and others. Contact: Richard N. Steppel, President, richard@exciton.com; Carrie Brown, Director of Office Relations, carrie@exciton.com.

EXPO INDUS - GL Events Group #6245

38/40 avenue de New York, Paris, France, 75016
33 1 44 31 83 34; fax 33 1 44 31 83 42
martine.renault@gl-events.com; www.forum4S.com

Fairchild Imaging #6034

1801 McCarthy Blvd, Milpitas, CA, 95035
408/433-2500; fax 408/435-7352
sales@fcimg.com; www.fairchildimaging.com

Fairchild Imaging, a manufacturer of scientific CCD and CMOS image sensors and cameras, provides high-performance detectors for visible, UV and x-ray imaging. Specialties include wafer-scale back-illuminated CCDs for the UV and soft x-ray and large fiber optic taper cameras up to 200-mm in aperture. Visit <http://www.fairchildimaging.com> for more information on these cooled, multiport cameras. Contact: Colin Earle, Vice President, Sales and Marketing, sales@fcimg.com.

Fairfield Crystal Technology, LLC #5135

SPIE Corporate Member

8 S End Plz, New Milford, CT, 06776
860/354-2111; fax 860/354-3093
info@fairfieldcrystal.com; www.fairfieldcrystal.com

New Product: We now offer non-polar and semi-polar silicon carbide and will introduce aluminum nitride in early 2009.

Fairfield Crystal Technology specializes in crystal growth for the optical and semiconductor industries. Currently we are manufacturing single crystal CaF₂, MgF₂, and BaF₂, crystals used for a variety of applications. Our Research and Development team is working on other crystals such as AlN, ZnS and CdS which we will introduce as products soon. Contact: Andy Timmerman, Sales Manager, atimmerman@fairfieldcrystal.com; Chris Snyder, Administrator, csnyder@fairfieldcrystal.com.

Fastlite #6239

47-45 rue Croulebarbe, Paris, France, 75013
33 1 45 30 12 95; fax 33 1 45 30 12 97
bertrand.mennesson@fastlite.com; www.fastlite.com

New Product: Fastlite's Phazzler provides full measurement of UV to near IR ultrafast pulses.

Fastlite is a scientific instrumentation company providing turn key ultrafast pulse shaping and pulse measurement systems. Fastlite patented technology relies on the use of in-line compact acousto-optic programmable dispersive filters (Dazzlers) to control the shape of ultrafast pulses, from the UV to the near IR. Over 200 research institutes and laboratories worldwide are equipped with Fastlite systems, covering a wide range of topics in fundamental physics, chemistry and biology. Contact: Bertrand Mennesson, Sales Manager US and Canada, bertrand.mennesson@fastlite.com; Pascal Tournois, Sales Manager, pascal.tournois@fastlite.com.

Feldmann GmbH #1801

Bergstr 31, Wetzlar Hessen, Germany, 35578
49 6441 50005 0; fax 49 6441 50005 55
info@feldmann-wetzlar.de; www.feldmann-wetzlar.de

FEMTO Messtechnik GmbH #722

Paul-Lincke-Ufer 34, Berlin, Germany, 10999
49 30 446 9386; fax 49 30 446 9388
info@femto.de; www.femto.de

New Product: New ultra low-noise amplifier DDPKA-300 with gain up to 10¹³ V/A for Femtoamp current measurements.

FEMTO designs, develops and manufactures low noise signal amplifiers and photoreceivers for sensitive measurements of small electrical and optical signals. The product offering includes lock-in amplifier modules and OEM boards, transimpedance, voltage, charge, logarithmic and GHz amplifiers, as well as amplified photodiodes, balanced photoreceivers and fiber-optic powermeters. In addition to standard products customized solutions are offered as well. Contact: Steffen Prein, Managing Director; Bill Bolster, US Representative.

Photonics West Exhibitor Directory

Femtochrome Research, Inc.

#6154



2123 4th St, Berkeley, CA, 94710
510/644-1869; fax 510/644-0118
sales@femtochrome.com; www.femtochrome.com

FEMTOCHROME manufactures state-of-the-art instruments for the characterization of ultrafast laser pulses. Our current FR-103 Autocorrelators/Crosscorrelators are unmatched in sensitivity and overall versatility. The FR-103 series is reasonably priced, offering excellent performance/price ratio. Contact: Frank Taylor, Sales Engineer, sales@femtochrome.com.

FEMTOLASERS, Inc.

#240



124 Mount Auburn St Ste 200 North, Cambridge, MA, 02138
978/456-9920; fax 978/456-9922
infofil@femtolasers.com; www.femtolasers.com

New Product: XL™ 500: >500 nJ, <50 fs @ 5.2 MHz; INTEGRAL™: <10 fs, >400 mW, >100 nm; RAINBOW™ HP: <7 fs.

FEMTOLASERS is the premiere manufacturer of compact laser oscillator and amplifier solutions, offering optical pulses down to 7 fs with multi MW/GW peak powers at MHz/kHz repetition rates, respectively. FEMTOLASERS also feature a patented optics line of ultra-broadband dispersive / non-dispersive components. Applications: attoscience, multi-photon microscopy, non-linear spectroscopy, plasma physics, optical coherent tomography, micro-machining of dielectric materials, THz generation.

Fenix Technology

#6402

642 E 39th Pl #1, Yuma, AZ, 85365
928/344-3310; fax 928/344-0119
info@fenixtechnology.com; www.fenixtechnology.com

Manufacture of high performance arc lamps and flash lamps which are used in industrial, military and medical applications. Contact: Maris Grasis, Sales Manager, mgrasis@fenixtechnology.com; Egils Grasis, mgrasis@fenixtechnology.com.

Ferrotec (USA) Corp.

#545

33 Constitution Dr, Bedford, NH, 03110
603/472-6800; fax 603/472-2320
jdeichler@ferrotec.com; www.ferrotec.com

Ferrotec manufactures precision thermoelectric solutions including Peltier coolers for heat-pumping, thermal cycling and precise temperature control, assembled heat-exchangers and temperature controllers. Our standard TEC line includes specialized solutions that have been optimized for optical, photonics, and laser applications including mini-modules, TECs with holes, thin-film and high-performance modules. For more information, visit www.ferrotec.com. Contact: info@ferrotec.com.

Fianium Inc.

#6225



858 W Park St, Eugene, OR, 97401
541/343-6767; fax 541/343-1838
sales@fianium.com; www.fianium.com

Fianium is the leading manufacturer of high-performance ultrafast fiber lasers for diverse applications including bio-medical, materials processing, and research. The company was founded with objective to challenge the dominance of ultrafast DPSS and pioneered the development of new generation of high power ultrafast fiber lasers, including UV and supercontinuum laser systems, offering superior performance and reliability at a lower cost of ownership compared to conventional solid state lasers. Contact: Vince Cowan, vince.cowan@fianium.com; John Clowes, john.clowes@fianium.com.

Fiber Optic Center, Inc.

#6121

23 Centre St, New Bedford, MA, 02740
508/992-6464; fax 508/991-8876
sales@focenter.com; www.focenter.com

New Product: ÅPOL 1000 Automatic Barefiber Polisher - Chisel, Angle/Flat, Conical.

Worldwide supplier, ÅLap® lapping film and ÅBond® adhesives. Production polishing machines, automatic stripping, epoxy dispensing, crimping, test equip, fusion-splicers and termination tools, supplies, cables, ferrules, cleaning supplies. Custom drillout and standard connectors stock. On-site technical support and consulting for complete assembly production available. Complete fiber manufacturing systems: MCVD gas-delivery, lathes, draw-towers, rotary seals for research/production. Contact: David Sylvia, Sales Manager, dsylvia@focenter.com; Tom Waite, Office Manager, twaite@focenter.com.



◆◆◆◆◆ PLASMA SCREEN SPONSOR

Fibercore Ltd.

#6071

Fibercore House University Parkway, Southampton Science Park, Chilworth Southampton Hampshire, United Kingdom, SO16 7QQ
44 23 8076 9893; fax 44 23 8076 9895
info@fibercore.com; www.fibercore.com

New Product: CP1500Y, a dual-clad er/yb co-doped fiber, and SM300, a pure silica core, UV-visible SM fiber.

Fibercore Ltd, the World's leading supplier of Specialty Singlemode Fibers, has over 26 years' experience exclusively dedicated to the design, manufacture and commercialization of specialty fibers. Whether you require Polarization Maintaining, Bend-Insensitive, Rare-Earth Doped, Cladding-Pump or Photosensitive fiber, Fibercore Ltd has the expertise and experience to more than meet all your expectations and requirements. To find out more and to discuss your requirements, visit us at Booth 6071. Contact: Wendy Stewart, Sales Administrator, info@fibercore.com; Dr. Chris Emslie, info@fibercore.com.

Fiberocryst

#6146

La Doua - L'Atrium - Bd Latarjet, Villeurbanne, France, 69616
33 4 26 23 71 21; fax 33 4 26 68 98 74
jm.fourmigue@fiberocryst.com; http://www.fiberocryst.com

New Product: Fiberocryst proposes single crystal fibers and tubes for laser, detectors and sapphire applications.

Fiberocryst produces and commercializes laser thin rods with this unique geometry; very thin and very long. We propose Nd:YAG or Yb:YAG thin rods with diameter 0.5 mm or 1 mm, and length 50 mm or 100 mm. Upon request, we can provide other crystal hosts, rare earth doped, with diameter from 0.3 mm to 2 mm and length up to 1000 mm. Contact: Mr. J.M. Fourmigue, C.E.O., jm.fourmigue@fiberocryst.com; Mr. Julien Didierjean, Optical Division Manager, j.didierjean@fiberocryst.com.

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◆◆◆◆◆ **Fiberguide Industries, Inc.**

#315

SPIE Corporate Member

1 Bay St, Stirling, NJ, 07980-1529
908/647-6601; fax 908/647-8464
info@fiberguide.com; www.fiberguide.com

New Product: Silica core Hard Plastic Clad fibers NA .39 and Hard Plastic Coated fibers NA .22.

Multimode, single mode, graded index fiber from UV-NIR. Design/engineer assemblies with widest range of endfittings/connectors and jackets to tailor product to technical and economic requisites. High density 2D, V Groove arrays for optical switches, WDM/DWDM, arrayed active devices; cables for SERCOS digital interface and VersaLink industrial automation; reflection/ backscattering probes for measuring specular or diffuse reflection from surface. FDA registered as Contract Manufacturer. Contact: Patrick Fung, Manager, Technical Sales, pfung@fiberguide.com; Tom Christie, Sales Associate, tchristie@fiberguide.com.

FiberLabs Inc.

#6510

KDDI Labs Bldg, 2-1-15 Ohara, Fujimino-shi Saitama, Japan, 356-8502
81 49 278 7829; fax 81 49 263 9328
info@fiberlabs.co.jp; www.fiberlabs.co.jp

New Product: O-Band Optical Amplifier Module. 1280-1320nm, +8 to +16dBm Output, up to >25dB of Gain.

Supplier of optical amplifiers, ASE sources, Fiber Lasers, LEDs and Specialty Fiber covering the widest wavelength ranges available. Amplifiers and ASE sources in O, S, C and L-Bands plus 1µm, 2µm and 850nm in bench-top, module, or rack-mount configurations. Fiber lasers in 1 and 2µm bands. LEDs from 455nm to 625nm. Custom and standard SMF and MMF. Located in Japan and formerly part of KDDi Labs, FiberLabs has been manufacturing high performance, high quality, optical products for 10 years. Contact: OgMentum Incorporated, Sales, sales@ogmentum.com; FiberLabs Inc., Information, info@fiberlabs.co.jp.

Fiberoptic Systems, Inc.

#6062

60 Moreland Rd Unit A, Simi Valley, CA, 93065
805/583-2088; fax 805/583-4018
sales@fiberopticssystem.com; www.fiberopticssystem.com

Fiberoptic Systems, Inc. offers custom and standard fiber optic bundles and patchcords for the medical, semiconductor, military, entertainment, spectroscopy, microscopy, and machine vision markets. In over 25 years of business we have worked prototype to production, UV to IR, cryogenic to high temperature, and short to long. We will help design a solution to fit your budgetary, timing, and quality requirements. Contact: Todd Johnson, VP Engineering, todd@fiberopticssystem.com; Sandy Stark, President, sandy@fiberopticssystem.com.

Fiberoptics Technology Inc.

#6281

1 Quassett Rd, Pomfret, CT, 06254
860/928-0443
www.fiberoptix.com

New Product: LED light engine, capable of output equal to an EKE lamp in a 6mm spot. NA. 55.

FTI designs and manufactures standard and custom fiberoptic lighting components, including light sources and fixturing, for front, back and oblique lighting applications required by area and line scanning detectors and cameras. The company distributes standard products thru traditional distribution channels, while working directly with integrators and OEMs for custom designed solutions. Established in 1977, FTI has over 1000 man years of experience developing fiberoptic lighting solutions. Contact: Tim Beeman, Sales Manager, tbeeman@fiberoptix.com; Steve Giamundo, Vice President, sgiamundo@fiberoptix.com.



FIBERPRO USA

#6386

3003 N 1st St #247, San Jose, CA, 95134
408/835-7795; fax 408/521-0402
sales@fiberpro.com; www.fiberpro.com

New Product: Low Birefringence Analyzer provides glass manufacturers with fast and accurate birefringence analysis.

FIBERPRO, INC., an innovative fiber optics solution provider supplies the most efficient and reliable solutions with unique technologies, including Low Birefringence Analyzer, Acoustic Optical Cable Identifier, FBG interrogation system, PMD Emulator, Passive Component Analyzer, Polarization Scrambler, Polarization Analyzer, PDL meter, PER meter, Polarization Controller, VOA and Tunable Coupler, etc. Contact: Richard Ryu, Sales Engineer, jcryu@fiberpro.com.

FiberTech GmbH Special Optical Fiber Technologies

#1801

Nalepastr 170-171, Berlin, Germany, 12459
49 30 53 00 58 0; fax 49 30 53 00 58 58
fiber@fibertech.de; www.fibertechgroup.com

FiberTech is one of Europe's leading producers of high-end quartz/quartz multi-mode fibers and of custom-made fiber-optic cables for industrial, medical and scientific applications. Contact: Thomas Heyer, Managing Director, theyer@fibertech.de; Lars Leininger, Sales/R&D Manager, lleininger@fibertech.de.

Photonics West Exhibitor Directory

Fibertech Optica

#6056

SPIE Corporate Member

330 Gage Ave Ste 11, Kitchener, ON, Canada, N2M 5C6
519/745-2763; fax 519/576-0885
info@fto.ca; www.fibertech-optica.com

New Product: Imaging fiber arrays with up to 25x25 fused silica fibers (minimum core diameter 100um) available.

Designer and manufacturer of specialty multimode all-silica, HCS, PCS, Hard Clad all-Silica fibers. Core diameters from 10um to 2000um. Also manufacturer of high power laser cables, patchcords, pigtailed, spot-to-line converters, bundles and reflectance probes, vacuum feedthrough, linear and spaced v-groove arrays. Spectral bands coverage from deep UV to MIR. Contact: Jeff Dupuis, Sales and Marketing Manager, jeffdup@fto.ca.

ficonTEC

#6200

27926 Muirfield, Mission Viejo, CA, 92692
949/916-0200; fax 949/916-0201
info@ficontec.com; www.ficontec.com

ficonTEC GmbH supplies semi-automatic and fully automated production and test systems, concentrating on the optical industry, laser diode manufacture, optoelectronics, medical technology, security and military engineering and telecommunications. ficonTEC is an innovative company that has rapidly established itself in a highly specialized market. Our technical competence and the ability to understand our customers to find individual and optimum solutions make us a competent business partner. Contact: Soon Jang, jang@ficontec.com; Torsten Vahrenkamp, CEO, vahrenkamp@ficontec.com.

Fietje Sensor and Optoelektronik GmbH

#1801

Dorfstr 1 E, Glashagen, Germany, 18209
49 38203 65633; fax 49 38203 17890
sale.info@fietje-web.de; www.fietje-web.de

Filmetrics, Inc.

#5017

9355 Chesapeake Dr, San Diego, CA, 92123
858/573-9300; fax 858/573-9400
info@filmetrics.com; www.filmetrics.com

Filtech Photonics Co., Ltd.

#1943

1Fl Bldg 3 Longchen Industrial Park, West Central Town,
Longgang Shenzhen, China, 518172
86 755 28957681; fax 86 755 28957369
info@filtech-filters.com; www.filtech-filters.com

Filtech Photonics Co., Ltd. is a leading coating company in China. We have state of the art manufacturing equipment and measurement instruments. Our main products include optical filters and optical parts for optical communications, lasers, digital imaging and optical parts for projectors. For more information please see our website: www.filtech-filters.com. Contact: Sean Cai, General Manager, Albert Duan, Sales.



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fineoptix GmbH

#1801

Schmalheck 18, Hüttenberg, Germany, 35625
49 6441 2104910; fax 49 6441 2104911
info@fineoptix.com; www.fineoptix.com

New Product: MPF-Systems by fineoptix - Transmission Spheres, Workshop Interferometers, Fringe Analyzing Software.

fineoptix is a very flexible manufacturer of optical components made to customers specification in short lead times. Equipped with latest CNC manufacturing and top class metrology, reliable achievement of quality and lead time is guaranteed. Availability of SSI Stitching Interferometrie and MRF Finishing allows manufacturing of high qualities and extreme geometries up to diameter 220mm. fineoptix offers full component manufacturing or SSI/MRF finishing service only, for VIS, UV and IR. Contact: Mr. Peter Flug, Managing Director, info@fineoptix.com; Ms. Miriam Eisner, Administration, m.eisner@fineoptix.com.

Finetech

#519

8380 S Kyrene Ste 110, Tempe, AZ, 85284
480/893-1630; fax 480/893-1632

sales@finetechusa.com; www.finetechusa.com

Precision bonder for laser bars and diodes, photonics packaging, VCSELs, MEMs, sensors and flip chips. Thermo-compression, thermo-sonic, eutectic, epoxy, ACF and Indium bonding. Process flexibility is ideal for R&D or prototyping. The Fineplacer Lambda (± 0.5 micron placement accuracy) is the pathway to Finetech's fully-automated, sub-micron accuracy FEMTO. Industry-leading machine specifications and process know-how built over years of customer application experience. Contact: Robert Avila, Western Region Manager, ra@finetechusa.com.

FJW Optical Systems, Inc.

#132

322 N Woodwork Ln, Palatine, IL, 60067
847/358-2500; fax 847/358-2533
irsales@findscope.com; www.findscope.com

New Product: FIND-R-SCOPE 1800/2200 nm Cameras operates visible to NEAR-IR. NTSC/PAL video out to monitor or PC.

FJW Optical Systems, world-leading manufacturer of self-contained, high-resolution. Find-R-Scope® Infrared Viewers, Ultraviolet Viewers, Infrared Viewers/Cameras and Radiometric Imagers. IR Viewers sensitive from 350-1550nm. UV Viewer from 180-1550nm. Vidicon Viewer/Camera sensitive 400-2200nm. Thermal Viewer 8-14 m. Great for inspecting IR diodes, aligning/profiling laser systems, research, biotech, forensics and document analysis. Optional lenses, standard and custom filters, CCD camera, meeting accessories. Contact: Mary Scarlata, Customer Service, irsales@findscope.com; Barry Durr, Director of Sales and Marketing, bdurr@findscope.com.

Flemming Tinker, LLC

#6421

23 Soobitsky Rd, Higganum, CT, 06441
860/301-2372; fax 860/760-6564
ftinker@ftoptics.com; www.ftoptics.com

New Product: High accuracy cylinder optics, litho mirrors and meter scale laser optics from Okamoto Optics.

FTLLC provides optics process and technology development that fuels the growth of today's best optics manufacturing companies. We also help our clients market custom optics to increase sales of special products. We enhance our clients' resources and capabilities by offering optics design and engineering, custom metrology instruments, predictive computer control solutions for optics manufacturing, and contract R&D services. See us today about your most challenging optics manufacturing needs. Contact: Flemming Tinker, President, ftinker@ftoptics.com.

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pco.dimax digital
high speed 12 bit
CMOS camera system

Features

- 1100 fps @ 2016 x 2016
- 4000 fps @ 1032 x 1024
- 12 bit dynamic range
- pixel size 11µm x 11µm
- imaging memory up to 16GB
- GigE Vision & USB2.0 interfaces
- multiple trigger options

Applications

- short time physics
- plasma imaging
- PIV
- ballistics
- biomechanics research
- automotive crash tests
- combustion imaging



See us at Photonics West,
San Jose, CA,
January 27 - 29, 2009,
Booth #1839

the
cooke
corporation

www.cookecorp.com
In Europe contact: www.pco.de

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FLIR Government Systems

#2005

27700A Parkway Ave, Wilsonville, OR, 97070
800/322-3731; fax 503/498-3904
www.flir.com/gs

FLIR's innovative EO/IR sensors incorporate laser components and precision optics designed and manufactured in-house. Our high-quality laser optical components are also used for high-power and space applications. FLIR designs, manufactures and supplies a wide range of infrared and visible optical components, coatings and state-of-the-art laser subsystems to the EO/IR industry.

FLIR Systems, Inc.

#721



25 Esquire Rd, N. Billerica, MA, 01862-2598
978/901-8000; fax 978/901-8532
info@flir.com;

New Product: The FLIR Silver infrared camera and ExaminIR software offers speed, sensitivity and accuracy.

FLIR, the global leader in infrared cameras, offers the most advanced infrared temperature measurement systems for research, thermal testing and product validation applications. FLIR's IR thermography systems provide an instant, accurate way to evaluate thermal performance. With FLIR's high speed infrared cameras, engineers can capture and record thermal distribution in real time - helping them to visualize and quantify heat patterns in the devices they create and in the events they monitor.

Florida Photonics Cluster

#639

12424 Research Pkwy Ste 100, Orlando, FL, 32826-3257
407/882-2104; fax 407/386-3426
stef@mail.ucf.edu; www.floridaphotonicscluster.com

The Florida Photonics Cluster (FPC) supports the growth and profitability of the Florida photonics industry through the strength of a unified voice for its members, by enhancing the overall photonics industry through mutually beneficial collaborations, and by making Florida the place to go for photonics solutions. FPC membership is available to all organizations that provide optics and photonics products or services, and also to non-photonics companies who provide services and products to photonics companies.

Flowstar, Inc.

#6199A

6800 Silacci Way, Gilroy, CA, 95020
408/842-2400; fax 408/842-2407
info@flowstar.com; www.flowstar.com

New Product: Modular cleanrooms of Class 10 to Class 100,000 facilities with hard or soft-wall.

The Flowstar cleanroom is adjustable, expandable and can be re-located to other sites; this feature will benefit small or large companies. If you are moving to a new site or just an internal relocation, you never lose your investment. Because of its modular design the Flowstar cleanroom is classified as equipment and can be depreciated; consult your accountant for details. Contact: Mark Zabala, Sales and Marketing, mzabala@flowstar.com; Debbie Currier, President, dcurrier@flowstar.com.

Foctek Photonics, Inc.

#6129



PO Box 366, 32 Bldg Juyuanzhou Ind Park 618 Jinshan Ave,
Fuzhou Fujian, China, 350008
86 591 8376 7816; fax 86 591 8376 7817
sales@foctek.com; www.foctek.com

New Product: Broadband Glan Thompson polarizer with wavelength from 220nm to 3300nm.

Manufacturer of optical components which include Penta and Right Angle prism, Corner Cube, Glan, Wollaston and Rochon Polarizer, Waveplate, BeamSplitter, PBS, Lens; BBO, KTP, Nd:YVO₄, Nd:YAG. Foctek covers 3000 sqm area and is equipped with advanced production and inspection facilities such as Trioptics Lens and Prism Measurement System, AK-40 Interferometer. Foctek is ISO9001 certified and commit customers with quality products, reasonable price, on-time delivery. Contact: Ken Lin, Sales, ken.lin@foctek.net; Steve Huang, President, steve.huang@foctek.net.

Fogale Nanotech

#1613

125 rue de l'Hostellerie, Nimes, France, 30900
33 4 66 62 05 55; fax 33 4 66 62 71 60
a.dumont@fogale.com; www.fogale.fr

Foreal Spectrum, Inc.

#6246

2380 Qume Dr Ste A, San Jose, CA, 95131
408/436-5558; fax 408/436-5557
sales@forealspectrum.com; www.forealspectrum.com

New Product: LED Illuminator: super bright, multi-channel, interchangeable, customizable interface, >10,000 hour.

Foreal's advanced design and manufacturing knowledge of Ion Beam Sputtered "hard" coatings has significantly improved the performance of precision optical components (filters, mirrors, prisms, PBS, X-Cubes) and optoelectronic modules for medical lasers, analytical instrumentation and LED DLP and LCOS projection systems. Our efficient, customizable LED light engines are direct replacements for traditional arc lamps in surgical lighting, HDTV, semiconductor test equipment and fluorescence microscopy. Contact: Dan Cifelli, VP Sales and Marketing, DanC@ForealSpectrum.com; Jim Kiss, Director of Sales and Marketing, JimK@ForealSpectrum.com.

Fotofab

#537

3758 W Belmont Ave, Chicago, IL, 60618
773/463-6211; fax 773/463-3387
sales@fotofab.com; www.fotofab.com

New Product: Fotofab makes custom precision metal parts in as little as one day!

Fotofab manufactures precision, thin metal parts to customer specifications. Common applications include RF shields, step lids, screens, apertures, leadframes, enclosures, connector housings and deposition masks. Using their process of Photochemical Machining, Fotofab can achieve lower tooling costs and a quicker turnaround than traditional methods of manufacturing. Standard delivery is two weeks with 5-day and 3-day delivery options available. Contact: Dan Sima, sales@fotofab.com.



EXHIBITION MAP/RESTAURANT GUIDE SPONSOR

Frankfurt Laser Co.

#126

SPIE Corporate Member

An den 30 Morgen 13, Friedrichsdorf, Germany, 61381
49 6172 27978 0; fax 49 6172 27978 10
sales@frlaserco.com; www.frlaserco.com

New Product: FLC presents a new series of line laser diode modules for industrial applications.

FLC supplies CW single mode and broad area laser diodes (370nm to 12µm with 1mW-15W), pulse IR laser diodes, super luminescent diodes in 650nm - 2300nm wavelength range in free space and fiber-coupled packages, high-power laser diode arrays with fiber output (2W-750W) CW and QCW, laser diode modules with high-quality glass optic, red, green, yellow and blue DPSS lasers, laser diode collimating and focusing optic, mid-IR 1.2µm-4.3µm LED lamps. Contact: Dr. V. Mazo, Sales Director, sales@frlaserco.com; K. Kreim, Sales Manager, kim.kreim@frlaserco.com.

Fraunhofer Institute for Photonics Microsystems (IPMS)

#6329

Maria-Reiche-Str 2, Dresden, Germany, 01109
49 351 8823 0; fax 49 351 8823 266
info@ipms.fraunhofer.de; www.ipms.fraunhofer.de

New Product: "Scanning Photon Microscope" based on a 2D microscanning mirror for the deflection of light.

The Fraunhofer IPMS carries out customer specific developments in fields of microelectronic and micro systems technology, serving as a business partner that supports the transition of innovative ideas into new products. The institute develops and fabricates CMOS technology products in its own clean room facilities, up to small pilot series production. About 200 scientists work on sensor and actuator systems, microscanners, spatial light modulators, lifetronics and organic materials and systems. Contact: Ines Schedwill, Marketing/Public Relations, Ines.Schedwill@ipms.fraunhofer.de; Moritz Fleischer, Head of Marketing/Public Relations, Moritz.Fleischer@ipms.fraunhofer.de.

Fraunhofer Heinrich Hertz

#1801

Einsteinufer 37, Berlin, Germany, 10587
49 30 31002 519; fax 49 30 31002 551
schlaak@hhi.fhg.de; www.hhi.fraunhofer.de

New Product: Fiber-coupled Terahertz Transmitter/Receiver Modules for 1.5µm Operation.

Photonic Components: From sensing to information technology - this is the range of applications developed at the HHI. LEDs, Lasers, THz devices, fast diodes, and the integration of these devices make up the scope of components. There is also profound competence in DOEs and polymer devices. We develop according to customer specifications and fabricate in small volumes. Contact: Martin Schell, Head of Department Photonic Components, martin.schell@hhi.fraunhofer.de; Wolfgang Schlaak, Head of Department Business Development, schlaak@hhi.fhg.de.

Fraunhofer ILT

#1801

Steinbachstr 15, Aachen, Germany, 52074
49 241 89060; fax 49 241 8906 121
info@ilt.fraunhofer.de; www.ilt.fraunhofer.de

The Fraunhofer ILT holds a leading international position in the transfer of laser technology to industrial application. Together with our innovative partners, we create tailored solutions capable of boosting companies into market-leading positions, and act as trend-setters to prepare the way for new generations of technologies and products. Contact: Mr. Dipl.-Ing. Michael Leers, Group Manager Diode-Laser and Laser-Optics Packaging, michael.leers@ilt.fraunhofer.de.

Fraunhofer Institut für Silicidforschung #1801

Neunerplatz 2, Würzburg, Germany, 97082
49 931 4100 0; fax 49 931 4100 199
info@isc.fraunhofer.de; www.isc.fraunhofer.de

New Product: Contractual material research and development, process consulting, process development and special patterning equipment.

The Fraunhofer ISC's expert team "Hybrid Polymers for Microsystems and Micromedicine" performs contractual research and development for industrial partners. Major focus is the development of custom-designed inorganic-organic hybrid polymers for optical, opto-electrical, micro- and polymer electronic applications and packaging, and life science applications. The materials for optics feature low absorption losses, adjusted refractive indices over a wide range and can be processed by different technologies compatible to semiconductor processing on various substrates. Contact: Annette Wahr, Annette.wahr@isc.fraunhofer.de.

Fraunhofer Institute for Applied Optics and Precision Engineering IOF

#1801

Albert-Einstein-Str 7, Jena, 07745
49 3641 807 0; fax 49 3641 807 600
info@iof.fraunhofer.de; www.iof.fraunhofer.de

Fraunhofer IOF carries out research and development in the field of optical systems technology: opto-mechanical design, multi-functional optical coatings, solid state based light sources, high power fiber lasers and amplifiers, micro- and nano-optics, packaging and joining technologies, metal optics, plastic optics, measurement and testing technologies, opto-mechanical precision systems. Contact: Dr. Brigitte Weber, Marketing Manager.

Fraunhofer-Institute for Physical Measurement Techniques IPM

#1801

Heidenhofstr 8, Freiburg, Germany, 79110
49 761 88 57 0; fax 49 761 88 57 224
info@ipm.fraunhofer.de; www.ipm.fraunhofer.de

New Product: Compact White and Herriott cells, IR-laser modules, THz-emitters and detectors, TIRF elements.

The Fraunhofer Institute for Physical Measurement Techniques IPM develops and builds optical sensor and imaging systems. The mostly laser-based systems combine optical, mechanical, electronic and software components to create perfect solutions of robust design that are individually tailored to suit the conditions at the site of deployment. Optical spectroscopy is one of the Institute's core competencies, in particular UV-Vis, NIR, MIR and terahertz (THz) spectroscopy. Contact: Dr. Armin Lambrecht, Head of Department, armin.lambrecht@ipm.fraunhofer.de; Dr. René Beigang, Head of Department, rene.beigang@ipm.fraunhofer.de.

Fresnel Optics GmbH

#1801

Flurstedter Marktweg 13, Apolda, Germany, 99510
49 3644 5011 0; fax 49 3644 5011 50
info@fresnel-optics.de; www.fresnel-optics.de

Fresnel Optics, a German subsidiary of the US Reflexite Corporation, offers a complete chain of optical design, tool fabrication, prototyping, precision polymer replication, and custom finishing of plastic microstructured optics. Product enhancement such as AR surface structuring (PlasmAR®), coating and printing improve our optical components' performance in automotive, machine-vision, sensor, avionics, solar, lighting and other systems. We are certified according to DIN EN ISO 9001:2000. Contact: H.-Ulrich Geyer, Sales Manager, info@fresnel-optics.de; Donna Desmarais, Manager Optical Solutions Business, US Operations, donna.desmarais@reflexite.com.

Photonics West Exhibitor Directory

Fresnel Technologies Inc.

#5021



101 W Morningside Dr, Fort Worth, TX, 76110
817/926-7474; fax 817/926-7146
info@fresneltech.com; www.fresneltech.com

Manufactures molded plastics, Fresnel lenses, and related optical components, as well as IR-transmitting materials and optics made from them. Specialties include lens arrays for passive infrared applications, diffusers and microlens arrays for illumination, and optics for environmental monitoring at 3.4 micrometers. Services now include in-house coatings and metrology. Design assistance, diamond machining, and complete tooling for prototyping to production also available. Contact: Linda H. Claytor, Vice President, lclaytor@fresneltech.com; Deb Wood, Administrator, dwood@fresneltech.com.

Frontier Optics Inc.

#5141

16618 Honeybee Dr, Tustin, CA, 92782
949/786-1919; fax 949/786-1907
sales@frontier-optics.com; www.frontier-optics.com

Manufacturer of stock and custom optics. Product offerings include singlet lenses, doublets, cylinders, prisms, windows, mirrors, beamsplitters and filters. Capabilities include prototype and high volume production. Contact: Lee Shaw, President, Lshaw@frontier-optics.com.

Fuzhou Alpha Optics Co., Ltd.

#6075



Bldg 14 Gulou Industrial Park, Jinshan Juyuanzhou, Fuzhou Fujian, China, 350002
86 591 88071539; fax 86 591 83841092
andy@alphaoptics.com.cn; www.alphaoptics.com.cn

New Product: Spherical lens (singlets and achromatic lens), Ball lens, Rod lens, Windows, Cylindrical lens, filters.

Professional manufacturer founded in 1991 advanced in high precision lens with competitive prices, ISO9001 and ISO14001 certified. Contact: Andy Hwuang, Sales Manager, andy@alphaoptics.com.cn.

GAGGIONE

#1716

3 Rue de la Roland BP 29, Montreal la Cluse, France, 01460
847/810-7392; fax 847/810-7392
www.gaggione.com

New Product: LEDnLIGHT collimators for companies designing and manufacturing LED products and solutions.

For more than 50 years, Gaggione has successfully provided comprehensive design, development and manufacturing capabilities for the production of thermoplastic-based products. In 2006 the company opened branch offices in Chicago and Shanghai and today is comprised of multiple business units, offering our customers end-to-end solutions for: Custom Optics, LEDnLIGHT, Packaging, Technical and Specialty Coatings. Contact: JM Ermel, Sales Engineer, Business Development North America, jm.ermel@gaggione.com; Jean Pierre Lauret, Optical Engineer, jp.lauret@gaggione.com.

Gam Laser Inc.

#5078

6901 TPC Dr Ste 300, Orlando, FL, 32822
407/851-8999; fax 407/850-0700
joebatcho@gamlaser.com; www.gamlaser.com

Gamdan Optics

#5130

2380 Qume Dr Ste F, San Jose, CA, 95131-1844
408/318-9253; fax 408/452-1640
info@gamdan.com; www.gamdan.com

New Product: Local manufacturing and distribution of Lithium Triborate (LBO).

GAMDAN Optics synthesizes, custom designs and precision manufactures nonlinear optical crystals. From our production and service center located in San Jose, California, we have advanced crystal growing and testing operations, allowing for the complete post-processing of optical crystals. We also provide optical components and post-processing services, including cutting, dicing, polishing and rework. Contact: Richard Lai, Director of Technical Sales, richard.lai@gamdan.com; Hanna Cai, hanna.cai@gamdan.com.

Gavish, Inc.

#6397

337 Rt 101, Bedford, NH, 03110
603/472-5900; fax 603/472-8333
info@gavish.com; www.gavish.com

Sapphire optics from gavish include windows, viewports, imaging arrays, optical lightpipes, lenses and a range of skin cooling optics for cosmetic surgical lasers. Optics are produced to end user specifications for finish and flatness with full service support including AR filtering and other specialty coatings and metallization. Final assembly of glued, soldered and brazed multi-element assemblies are also available. Gavish is also a fully integrated ISO 9001 approved supplier. Contact: Jeremiah Fitzgibbon, National Sales and Marketing Manager, jfitzgibbon@gavish.com; Cathy Schult, Account Manager, cschult@gavish.com.

GD Optical Competence GmbH

#1801

Herborner Str 7i, Sinn Hessen, Germany, 35764
49 2772 5744 0; fax 49 2772 5744 165
info@gdoptics.de; www.gdoptics.de

New Product: Concentrators for solar systems, lightpipes.

Founded in 1992, GD Optics develops and produces state of the art molded optics in glass for highest requirements. Due to a highly flexible production process we are able to provide both- individual customized solutions and standard lenses for different applications. In-house optical design, mold design and mold fabrication enable us to provide exceptional solutions. Low mold costs, compared to plastic, enable molded solutions in glass in small quantities also. Contact: Gerhard Dross, Managing Director, info@gdoptics.de.

GEL-PAK

#547

31398 Huntwood Ave, Hayward, CA, 94544-7818
510/576-2220; fax 510/576-2282
info@gelpak.com; www.gelpak.com

New Product: Gel-Pak announces Membrane boxes which securely hold optics between two thin, elastic membranes.

Gel-Pak manufactures a family of innovative Gel-coated boxes, trays, and films. Gel-Pak's products are designed for applications where maximum protection is required during the shipping, handling and processing of valuable devices - especially optics. Gel-Pak's manufacturing expertise allows the company to quickly customize existing products or develop new solutions to meet ever changing industry requirements. Contact: Darby Davis, Director of Sales and Marketing, darby@delphon.com; Jasmine Shih, Sales Manager, jasmine@gelpak.com.

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- Opto-Mechanical and Electro-Optical Assembly
- Turnkey System Manufacturing
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- Machined Optical Structures
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General Atomics

#6035

10240 Flanders Ct, San Diego, CA, 92121
858/457-8700; fax 858/457-8746
www.galasers.com

General Atomics manufactures Diode Pumped Solid State lasers and high performance custom lasers for military, scientific and commercial customers. For example, high peak power, nanosecond pulse width lasers for industrial micromachining, LIDAR instruments for remote imaging, or ultrafast, high energy laser systems for scientific research. In addition, our product portfolio includes large size, greater than 90% efficiency diffraction gratings for laser applications. Contact: Aaron Dodell, Applications Engineer, aaron.dodell@ga.com.

General Optics

#715



5390 Kazuko Ct, Moorpark, CA, 93021
805/529-3324; fax 805/529-4298
sales@goochandhousego.com; www.goochandhousego.com

Gentec Electro-Optics Inc.

#1334



445 St-Jean-Baptiste Ste 160, Quebec, QC, Canada, G2E 5N7
418/651-8003; fax 418/651-1740
info@gentec-eo.com; www.gentec-eo.com

New Product: Introducing the HP60A water cooled High Power Detector that handles up to 3 kW of continuous power.

Gentec-EO has over 35 years of experience in the laser measurement field. Our product line includes a complete range of laser power and energy meters, monitors, photo detectors, OEM detectors, beam diagnostics and diffractive optics. We are committed to providing the most accurate NIST traceable measurements available anywhere. Our pricing policies are amongst the most profitable for you. Combined with our high quality products, you will always get the highest quality/price ratio there is. Contact: Nathalie Becotte, Sales Manager, nbecotte@gentec-eo.com; Nicolas Litalien, Inside Sales Specialist, nlitalien@gentec-eo.com.

Gentex Corp.

#2025

324 Main St, Simpson, PA, 18407
570/282-8549; fax 570/282-8555
www.gentexcorp.com

Gevicam, Inc.

#6222



673 S Milpitas Blvd Ste 100, Milpitas, CA, 95035
408/262-5772; fax 408/262-0962
info@gevicam.com; www.gevicam.com

GFM-3D Metrology USA, Inc.

#6122

5700 Granite Pkwy Ste 200, Plano, TX, 75024
972/731-2515; fax 972/767-3018
becky.bell@gfm3d.com; www.gfm3d.com

Gilden Photonics Ltd

#1733

13 Telford Ct, 9 South Ave, Clydebank, United Kingdom, G81 2NR
sales@gildenphotonics.com; www.gildenphotonics.com

Gist Optics Co., Ltd.

#5118



No 340 Jingyue St, Changchun Economic Technological Development Zone, Chnagchun, China, 130117
86 431 8670 8186; fax 86 431 8670 8185
sales@goptics.com; www.goptics.com

Glass Fab Inc.

#5075



Optical Fabrication, 257 Ormond St, Rochester, NY, 14605
585/262-4000; fax 585/454-4305
info@glassfab.com; www.glassfab.com

Manufacture of custom blanks. Products include fused quartz, fused silica, optical glasses, filter glasses and low/ultra low expansion glasses. Capabilities include annealing, slumping, sawing, grinding, edging, drilling, water jet cutting, CNC shaping and CNC generating. Contact: Daniel Saltzman, President, d_saltzman@glassfab.com; Wayne Leon, Sales Manager, w_leon@glassfab.com.

Global Laser Ltd.

#3009

Technology Center, Cwmtillery Industrial Estate, Abertillery Gwent, United Kingdom, NP13 1LZ
44 1495 212213; fax 44 1495 214004
jonw@globalasertech.com; www.globalasertech.com

Global Laser specialise in a wide range of OEM, high performance, high reliability laser diode module products for use within many niche applications including machine vision, alignment, medical, measurement, scientific and military. Contact: Jonathan White, Sales and Marketing Manager, jonw@globalasertech.com; Nikki Powel, Key Account Manager, nikip@globalasertech.com.

Gold Dragon Optics Co., Ltd.

#1941

No 286 Torch Rd, Changchun Jilin, China, 130012
86 431 85353336; fax 86 431 85353338
www.golddragonoptic.com

New Product: The Largest Manufacturer of Optical Cylindrical Lens in North of China.

Gold Dragon Optics is a professional manufacturer of precision optical components. Our core business is designing and producing custom optics products and crystals for the commercial and marketplace refer to laser, medicine, military, semiconductor and telecommunication application areas. With its quality system ISO 9001 certified, the main productions are cylindrical lens, achromatic doublet lens, spherical lens, window, prism, UV-grade fused silica, CaF₂, Ge, Si, ZnSe, etc. Contact: Chunsheng Wang, Chief Executive Officer, cswang@golddragonoptics.com.

Gooch and Housego (Deutschland) formerly Landwehr Electronics GmbH

#715



Stettiner Str 7, Norderstedt, Germany, 22850
49 4052 88 990; fax 49 4052 82 863
sales@goochandhousego.com; www.goochandhousego.com

Gooch and Housego (Melbourne) formerly Neos Technologies, Inc.

#715



4005 Opportunity Dr, Melbourne, FL, 32934
321/242-7818; fax 321/242-1019
sales@goochandhousego.com; www.goochandhousego.com

Gooch and Housego (Ohio) formerly Cleveland Crystals, Inc. #715

SPIE Corporate Member

676 Alpha Dr, Highland Heights, Cleveland, OH, 44143
216/486-6100; fax 440/461-1538
sales@goochandhousego.com; www.goochandhousego.com

Gooch and Housego (Torquay) formerly Sifam Fibre Optics Ltd. #715

SPIE Corporate Member

Broomhill Way, Torquay Devon, United Kingdom, TQ2 7QL
44 1803 407 807; fax 44 1803 407 786
sales@goochandhousego.com; www.goochandhousego.com

Gooch and Housego (UK) Ltd. #714, 715

SPIE Corporate Member

Dowlish Ford, Ilminster Somerset, United Kingdom, TA19 0PF
44 (0) 1460 256 440; fax 44 (0) 1460 256 441
sales@goochandhousego.com; www.goochandhousego.com

New Product: Fibre Coupled Isolator for Fibre Lasers.

Gooch and Housego a manufacturer of Acousto-Optic, Electro-Optic, Fibre-Optic, RF Drivers and Precision Optical Components and Sub Systems combined with Materials Engineering, Crystal Growth, Polishing and Coating capabilities for the Aerospace and Defense, Biomedical, Telecommunications, Industrial and Research and Scientific Sectors. G&H have worldwide sales and six manufacturing sites this includes the latest acquisition of General Optics, California. Contact: Paul Morris, SVP Sales, pmorris@goochandhousego.com; Brent Gross, Americas Sales Director, bgross@goochandhousego.com.

Gorman Rupp Industries #6273

180 Hines Ave, Bellville, OH, 44813
419/886-3001; fax 419/886-2338
grisales@gripumps.com; www.gripumps.com

Gorman-Rupp Industries is a manufacturer of high quality liquid pumps for the Original Equipment Market. Our goal is to provide the highest quality product to meet the needs of our customers. Our engineering department is uniquely structured to quickly evaluate your application and create a solution specific to your needs. If you have a special application you would like to discuss, please feel free to visit our booth or view our website at www.gripumps.com. Contact: GRI Sales, grisales@gripumps.com; Jim Fehrman, Marketing Coordinator, jfehrman@gripumps.com.

GPD Optoelectronics Corp. #6252

7 Manor Pkwy, Salem, NH, 03079
603/894-6865; fax 603/894-6866
sales@gpd-ir.com; www.gpd-ir.com

New Product: 1.5 mm. InGaAs photodetector, sensitivity to 2.6 microns.

GPD Optoelectronics Corp. designs and manufactures Ge pn, pin, APD and InGaAs pin photodetectors for infrared detection (to 2.6 microns) and telecommunications applications. Devices are available in die form, on submounts and in a large variety of TO- and custom packages. ITAR registered. Custom chips and packaging are a GPD specialty. Contact: Dan LaPointe, Sales Manager, dlapointe@gpd-ir.com; Rufus Ward, VP Engineering, rward@gpd-ir.com.

Grintech GmbH #139

SPIE Corporate Member

Schillerstr 1, Jena, Germany, 07745
49 3641 2276 0; fax 49 3641 2276 11
info@grintech.de; www.grintech.de

GRINTECH manufactures gradient index (GRIN) lenses and lens systems for applications in fiber optics, medical imaging, diode laser beam shaping and sensor technology. Contact: Herbert Stuermer.

G-S PLASTIC OPTICS #223

SPIE Corporate Member

408 St Paul St, Rochester, NY, 14605
585/295-0200; fax 585/232-2314
info@gsoplastics.com; www.gsoplastics.com

New Product: G-S PLASTIC OPTICS announces the integration of a Precitech Nanoform® 200 diamond turning machine.

G-S PLASTIC OPTICS specializes in custom manufacture of precision polymer optics for imaging, scanning, detection and illumination applications. In addition to an extensive catalog offering of polymer optics, GSPO has in-house capability to provide custom designed diamond turned and injection molded prototypes, production injection molding of optics, thin film and reflective coatings and integrated optical solutions to meet a wide range of military, medical, commercial and consumer markets. Contact: Will Beich, Director of New Business Development.

GSI Group Corporation #1241

SPIE Corporate Member

125 Middlesex Turnpike, Bedford, MA, 01730-1409
781/266-5700; fax 781/266-5112
www.gsig.com

GTI Technologies #6101

6 Armstrong Rd, Shelton, CT, 06484
203/929-2200; fax 203/926-0074
info@gti-usa.com; www.gti-usa.com

Guild Optical Associates, Inc. #3008

11 Columbia Dr, Amherst, NH, 03031
603/889-6247; fax 603/889-8361
info@guildoptics.com; www.guildoptics.com

Guild Optical Associates specializes in the precision, custom fabrication of optical components including singlet, doublet and triplet lenses, window, mirrors and special shapes. We work with all of the common optical materials and have developed an industry wide reputation for the fabrication of sapphire. Prototypes through full production runs with tight tolerances and superior surface finishes. Contact: Frank A. Reed, Vice President.



Photonics West Exhibitor Directory

Guojing Infrared Optical Technology Co., Ltd.

#1946

SPIE Corporate Member

Block 2 No 43 Bei San Huan Middle Rd, Hai dian District, Beijing, China, 100088
86 10 82240015; fax 86 10 82241053
wjx@guojing-tech.com; www.guojing-tech.com

New Product: IR material : CVD ZnS/CVD ZnSe, Sapphire, Chalcogenide Glass.

GUOJING is a subordinate limited company of General Research Institute for Nonferrous Metal (GRINM), known for her exclusive position in the field of Germanium and IR materials in China. GUOJING devoted to Germanium and IR materials for more than 50 years. Main products are Germanium crystal, Zinc Sulfide, Zinc Selenide, etc. GUOJING will continue to advance its research and development efforts to deliver innovative technologies and provide top quality products and satisfying services. Contact: Su Xiaoping, General Manager, sxp@guojing-tech.com.

Gurley Precision Instruments, Inc.

#339

514 Fulton St, Troy, NY, 12180
800/759-1844; fax 518/274-0336
sales@gurley.com; www.gurley.com

GPI manufactures high-end optical encoders, components and assemblies to the optics, medical, aerospace and defense industries. From design phase to volume runs, we manufacture custom and catalogued components designed to meet your specific requirements. Our product line includes; linear and rotary encoders, lenses, windows, mirrors, prisms, reticles, and full coating services for most types of substrates. For more information, stop by our booth or visit our website at www.gurley.com. Contact: Brian Molis, Director of Optic Sales, b.molis@gurley.com.

GWU-Lasertechnik GmbH

#1921, 2021

Talstr 3, Erfstadt, Germany, 50374
49 2235 955 220; fax 49 2235 756 32
info@gwu-group.de; www.gwu-group.de

GWU-Lasertechnik offer a broad product line of pulsed optical parametric oscillators (OPOs) in a variety of versions and with many useful options including wavemeter for automated calibration and frequency converters to cover the UV range. Customized configurations include laser/OPO/harmonic generator systems in a common housing (even for outdoor use). Further products of GWU: Spectrelle - high resolution Echelle spectrographs, crystals and optics, including laser and non-linear crystals, periodically poled crystals, waveplates, and prisms. Contact: Günter Warmbier.

Hagitec Co., Ltd.

#6326

c/o Jalux Americas, Inc., 390 N Sepulveda Blvd Ste 3000, El Segundo, CA, 90245
310/524-1020; fax 310/524-1090
t.inukai@jaluxam.com; www.hagitec.co.jp

New Product: Patented [DOUBLE STAND TUBE], a stand-tube that will last 10 times longer the standard stand-tube.

We supply the highest quality stainless steel flexible tubings of small diameter to a wide range of industries, including medical, aeronautics, high-tech, communication, and more. Contact: Tark Inukai, Manager Sales and Marketing, t.inukai@jaluxam.com.



COFFEE BREAK; STAIRWAY STRIPS SPONSOR

Hamamatsu Corp.

#826, 827

SPIE Corporate Member

360 Foothill Rd, Bridgewater, NJ, 08807-2932
908/231-0960; fax 908/231-1218
usa@hamamatsu.com; www.sales.hamamatsu.com

New Product: C10988MA(X) "thumb-size" spectrometer head for portable color management devices (340 to 750 nm).

Hamamatsu Corporation is the North American subsidiary of Hamamatsu Photonics K.K. (Japan), a leading manufacturer of devices for the generation and measurement of infrared, visible, UV light and x-rays. These devices include photomultiplier tubes, photodiodes, image sensors, CCD cameras, and light sources. Hamamatsu Photonics also offers specialized systems for semiconductor inspection, NDT, and drug discovery. Contact: Chris DePalma, Marketing Engineer, cdepalma@hamamatsu.com; Adrienne Iguchi, Marketing Engineer, aiguchi@hamamatsu.com.

Hangzhou Photographic Machinery Research Institute

#6150

No 560 Xixi Rd, Hangzhou Zhejiang, China, 310013
86 571 8791057; fax 86 571 87976451
sales@hzoptical.com; www.hzoptical.com

New Product: Aspherical plastic lenses, LED lenses, Head-mounted display lenses.

Hangzhou Photographic Machinery Research Institute is the only professional R&D institute of Chinese photo-machinery industry. The engineering center featuring characteristic lens mainly research, develop and manufacture special lenses and optical plastic lenses including all kinds of spherical and aspherical optical plastic lenses, digital camera lenses and mobile phone lenses, viewfinder, projector lens, big screen crystal rear-projective TV lens, microscope, laser lens and lenses. Contact: Guo Gailing, Sales.

Hardin Optical Co.

#6396

SPIE Corporate Member

PO Box 219, Bandon, OR, 97411
541/347-9467; fax 541/347-2611
optics@hardinoptical.com; www.hardinoptical.com

Harold Johnson Optical Labs.

#3001

1826 W 169th St, Gardena, CA, 90247
310/327-3051; fax 310/327-6179
hj@hjol.com; www.hjol.com

Manufacturer of cylindrical and spherical lenses, domes, mirrors, flats, prisms, beam splitters and multi-element assemblies in prototype and volume quantities for industrial, medical, research and MIL-SPEC applications. Contact: Raquel Suarez, Office Manager, raquel@hjol.com; Dorothy Hill, VP QC/QA, hj@hjol.com.

Harris Corp.

#636

1025 W NASA Blvd, Melbourne, FL, 32919
321/727-9100
webmaster@harris.com; www.harris.com

Harris is an international communications and information technology company serving government and commercial markets in more than 150 countries. Headquartered in Melbourne, Florida, the company has annual revenue of more than \$5.3 billion and 16,500 employees - including nearly 7,000 engineers and scientists. Harris is dedicated to developing best-in-class assured communications®; products, systems and services. Additional information about Harris Corporation is available at www.harris.com. Contact: Sleighton Meyer, Marketing Communication Specialist, smeyer@harris.com.

Harz University of Applied Sciences #1801

Friedrichstr 57-59, Wernigerode, Germany, 38855
49 3943 659 368; fax 49 3943 659 5368
mhaupt@hs-harz.de; www.hs-harz.de

HawkEye Technologies #733

181 Research Dr Unit #8, Milford, CT, 06460
203/878-6892; fax 203/878-7462
info@hawkeyetechnologies.com;
www.hawkeyetechnologies.com

HB Optical Technology Co., Ltd. #1947

No 242 Beihai St, Dadong District, Shenyang, China, 110043
86 24 88710538; fax 86 24 88722312
info@hb-optical.com; www.hb-optical.com

New Product: Biomedical filters, fluorescence filters, variable neutral density filters, reflectors, bandpass filters.

HB Optical specializes in the design and manufacture of precision optical filters and reflectors. We have more than 30 years of experience in manufacturing high quality interference bandpass filters and focusing cold reflectors for industrial and scientific applications, including biomedical instrumentation, fluorescence studies, machine vision, analytical chemistry instruments, cinematograph, projector, lighting and many others. Contact: Linlin Gao, International Business Director, gaolinlin@hb-optical.com; Yue Zhang, Businessman, zhangyue@hb-optical.com.

HC Photonics Corp #2009

SPIE Corporate Member

F4 No 2 Technology Rd V, Hsinchu Science Park,
Hsinchu, Taiwan, 300
886 3 666 2123; fax 886 3 666 2124
service@hcphotonics.com; www.hcphotonics.com

New Product: HCP Mixer - a wavelength conversion module for UV to IR with fiber delivery.

HCP specializes in optical wavelength converters based on Periodically Poled Nonlinear Materials: PPMgO:CLN/SLT for bulk and waveguide. With SHG/SFG/DFG/OPG/OPO configurations to cover 350nm to 5500nm range for full spectrum applications - RGB Display, Bio-photonics, Scientific and Others. Mixer - a wavelength conversion module with fiber delivery to cover complete range of wavelength from UV to IR. Simply plug in your fiber laser into our mixer to generate desired wavelength and power. Contact: Karin Wu, Sales Director, karin@hcphotonics.com; Susan Soon, Sales Section Manager, susan_soon@hcphotonics.com.

Headwall Photonics #3002

SPIE Corporate Member

601 River St, Fitchburg, MA, 01420
978/353-4010; fax 978/348-1864
information@headwallphotonics.com;
www.headwallphotonics.com

New Product: Hyperspec VIS Imaging Spectrometer.

Leading designer and manufacturer of imaging spectrometers for hyperspectral and Raman applications as well as non-imaging spectral instruments. Headwall provides application-specific spectroscopy solutions for OEMs and end-users in analytical and test and measurement markets and research applications. Products: single point and dual-beam spectrometers, imaging spectrometers and holographic gratings for OEMs. Core technology: high performance spectral instruments based on holographic diffraction optics. Contact: David Bannon, Sales; Kirk Grim, Sales.

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Tel: +86 059183215681 sales@dayoptics.com

HEETRONIX, Inc. #6403

725 Trademark Dr Ste 104, Reno, NV, 89521
775/852-8306
steven.riggs@heetronix.com; www.heetronix.com

New Product: Revolutionary bolometer power/energy meter eclipsing thermopile meters in every performance category.

HEETRONIX power/energy meters operate in CW and average power, energy and photoconduction. In any mode: the sensor has zero drift or damage; response is independent of beam shape, size or position on sensor surface; one sensor measures both CW and pulse power at all wavelengths; thermal response time constant is less than or equal to 0.001 seconds; the rate at which heat sink temperature rises will not affect accuracy; higher damage threshold than any thermopile. Contact: Steven Riggs, Director, Marketing and Sales, steven.riggs@heetronix.com; Jim Parsons, President, jdp@heetronix.com.

Heidelberg Instruments Inc. #5027

SPIE Corporate Member

2807 Oregon Ct Unit E-2, Torrance, CA, 90503
310/212-5071; fax 310/212-5254
sales@heidelberg-instruments.com; www.himt.de

Photonics West Exhibitor Directory

HEL Joint Technology Office

#6707

901 University Blvd SE Ste 100, Albuquerque, NM, 87106
505/248-8200; fax 505/245-2195
hel-jto@jto.hpc.mil;

The HEL JTO was established in 2000 to develop and execute a DoD investment strategy for HEL S&T that would underpin weapons development. The JTO currently sponsors 80+ projects across industry, academia and government with a budget of \$70 million. The competitively awarded programs are chosen to advance the current state of the art in HEL technology and fill technology gaps, thus providing a broad capability that can be harvested in acquisition programs by the military services.

Helia Photonics Ltd.

#1733

Rosebank Park, Livingston, United Kingdom, EH54 7EJ
44 1506 414800; fax 44 1506 414070
info@helia-photonics.com; www.helia-photonics.com

Helioworks, Inc.

#733

1275 4th St, Santa Rosa, CA, 95404
707/578-7200; fax 707/578-7200
info@helioworks.com; www.helioworks.com

New Product: The EP-3965 IR source operates at 1900 K with an input of 7 Watts and a spectrum to over 5 microns.

HelioWorks, Inc. manufactures infrared sources used in Near Infrared (NIR) spectroscopy and Non-Dispersive IR (NDIR) gas detectors for industrial and medical applications including: CO, CO₂, alcohol, and hydrocarbon gases. Our products include both PULSABLE and STEADY STATE sources utilizing tungsten, Kanthal and NiCr filaments. All are constructed in standard TO-8 packages with gold plated parabolic reflectors. We welcome your requests with specialized requirements to meet your needs. Contact: Don Wood, CEO, info@helioworks.com.

Hellma USA, Inc.

#426



80 Skyline Dr, Plainview, NY, 11803
516/939-0888; fax 516/939-0555
info@hellmausa.com; www.hellmausa.com

Manufacturer of Hellma Optics, Photometer Cells, Fiber Optic Immersion Probes, Photometric Calibration Standards and Quartz Microplates. Cylindrical/Flat Optics, Beam Splitters and Mirrors for Laser and other applications. Supplier of Heraeus Light Sources including D2, HCL, PID, Spectral Line; Zeiss MMS/MCS Monolithic Miniature Spectrometer modules covering 190-2200nm in combination (16 bit S/N); Tec5 Interface electronics for display/readout of PDAs and CCDs. Custom designs of all products. Contact: Dan Fields, dfields@hellmausa.com; Eugene Friedmann, efriedmann@hellmausa.com.

Heptagon

#6166

Moosstr 2, Rueschlikon, Switzerland, CH-8803
41 1 497 30 00; fax 41 1 497 30 01
sales@heptagon.fi; www.heptagon.fi

Heptagon is the pioneer and leader in replicated wafer-scale diffractive optics and micro-optics. Our expertise in design, mastering and unique REEMO® UV replication technology enables a breakthrough in size, performance and cost in, e.g., LED beam shaping, CMOS imaging, optical telecom/datacom and laser pattern generation. Our products are lead-free reflow compatible and Telcordia qualified. Heptagon is ISO9001 certified and manufactures components in high volume for customers worldwide. Contact: Jyrki Saarinen, Senior Vice President, jyrki.saarinen@heptagon.fi.

Heraeus Quartz America

#620



100 Heraeus Blvd., Buford, GA, 30518
678/714-4350; fax 678/714-4358
sales.hqs.optics.us@heraeus.com; www.heraeusoptics.com

Heraeus is a leader in manufacturing of high purity quartz materials, components and produces various types of high purity fused silica for use in semiconductor manufacturing, telecommunications, optical, chemical, lamps and variety of other advanced applications. Contact: Christina Milkau, Marketing, sales.hqs.optics.us@heraeus.com; David Gritz, Director, sales.hqs.optics.us@heraeus.com.



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High Q Laser (US), Inc.

#218

118 Waltham St, Watertown, MA, 02472
617/924-1441; fax 617/924-5554
sales@highq-us.com; www.highqlaser-us.com

High Q Laser is a leading manufacturer of ultrafast all-diode-pumped, solid state pico- and femtosecond oscillators and regenerative amplifiers. All lasers are based on direct diode-pumping and semiconductor saturable absorber mirror (SESAM) modelocking. The set-up of High Q Laser systems is compact and modular - operation and installation is easy. Sealed-off technology leads to long life times and reliability - saving time and budget. Contact: Alex Lang, Sales and Technical Support Manager, sales@highq-us.com.

High Tech Photonics

#635

23 Alafaya Woods Blvd, Oviedo, FL, 32765
800/335-5582; fax 888/335-5587
jim@jtingram.com; www.jtingram.com

New Product: Q MACS Trace gas Measurement and control system Quantum Cascade Laser Measurement and Control System.

Supplier of Fiber Optic Assemblies for use in the MID IR (up to 18um), NIR, VIS and UV. Accessories for FTIR, fiber coupling, collimating, focusing, laser delivery, Q MAC Trace gas measurement systems, Fiber optic probes for MID IR (up to 18um), NIR, VIS, UV. Contact: Jim Ingram, Marketing Manager, jim@jtingram.com.

Hilger Crystals Ltd.

#6021

Unit RI Westood Estate, Margate Kent, United Kingdom, CT9 4JL
44 1843 231 166; fax 44 1843 290 310
sales@hilger-crystals.co.uk; www.hilger-crystals.co.uk

Hilger Crystals are a major manufacturer of infra red and x ray detection crystals for a variety of applications including medical, security and industrial imaging. Custom designed parts are a specialty. Contact: Chris Smissen, Sales and Marketing Manager, chris.smissen@hilger-crystals.co.uk; Jim Telfer, Managing Director, jim.telfer@hilger-crystals.co.uk.

Hinds Instruments, Inc.

#731



7245 NW Evergreen Pkwy, Hillsboro, OR, 97124-7135
503/690-2000; fax 503/690-3000
sales@hindsinstruments.com; www.hindsinstruments.com

Hinds product line includes Stokes polarimeters (for fiber, free space, astronomical light sources), Exicor® birefringence measurement tools (for research and process control) and the 2-MGEM (for evaluation of reflected optical diattenuation). Hinds offers a complete line of polarization components for researchers and OEMs including optical choppers (20-84 kHz), photoelastic modulators (for MOKE, ellipsometry, RAS, Faraday rotation and fluorescence), detectors and a PEM Laser Synchronizer. Contact: Connie Wimmer, Technical Sales; Doug Mark, Sales Engineer, sales@exicor.com.

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Hitachi High Technologies America, Inc. #6313

SPIE Corporate Member

5201 Great America Pkwy Ste 532, Santa Clara, CA, 95054-1130
408/982-4630; fax 408/982-9188
www.hitachi-hta.com

The Advanced Materials Division's strategic alliances with cutting-edge component suppliers ensure that the Opto Communications Group brings innovative solutions to the marketplace. Our partners' state-of-the-art capabilities, combined with the group's global sales network and technological focus, allows the Opto Communications Group to offer the entire supply chain solution: design advice, sourcing support, quality control, and on-time material delivery to any location worldwide.

Hofstadter Analytical Services #6500

SPIE Corporate Member

10 N Norton Ave Ste 120, Tucson, AZ, 85719
520/747-3282; fax 520/747-3282
www.hofstadteranalytical.com

Hofstadter Analytical Services provides structural, thermal and multi-physics analysis to the optics, electronics and sensor communities. Contact: Daniel Hofstadter, Principal, dan@hofstadteranalytical.com; Lynn Kot, Lead Engineer, lynn@hofstadteranalytical.com.

Holland Pavilion #6270

PO Box 10, The Hague, The Netherlands, 2501 CA
31 70 344 1544; fax 31 70 347 5071
info@nchnl.nl; www.handelsbevoording.nl

The Holland Pavilion, in which 13 Dutch companies are represented, is organized by the Netherlands Council for Trade Promotion NCH, with financial support of the EVD, Agency for International Business and Cooperation of the Netherlands Ministry of Economic Affairs. Contact: Akie Plomp, Director Fairs and Exhibitions, aplomp@nchnl.nl.

Holochip Corp. #6070

4940 W 147th St, Hawthorne, CA, 90250
650/906-1064
rgb@holochip.com; www.holochip.com

New Product: APL™ family of adaptive polymer singlet lenses in which the focal length can be adjusted.

Holochip Corporation manufactures variable-focal-length adaptive polymer lenses (APL's) that enable engineers, scientists and consumers with innovative solutions for manipulating light. Our durable, high-precision APL's provide a 10-mm aperture and 50-Diopter focal power range without having to change the lens location. Current products include APL singlets for research and OEM applications. Contact: Rob Batchko, CEO, info@holochip.com.

HOLOEYE Photonics AG #2015

SPIE Corporate Member

Albert-Einstein-Str 14, Berlin, Germany, 12489
49 30 6392 3660; fax 49 30 6392 3662
contact@holoeye.com; www.holoeye.de

HOLOEYE Photonics AG and its United States-subsiary, HOLOEYE Corp., are providing services and products in the fields of diffractive optics (DOE), spatial light modulation (SLM) and LCOS microdisplay components. HOLOEYE offers design and production services of diffractive micro-optical elements, Spatial Light Modulators (SLM) which are based on high resolution translucent or reflective microdisplays and a great variety of LCOS microdisplay types and systems.



Photonics West Exhibitor Directory

HORIBA Jobin Yvon Inc.

#515



3880 Park Ave, Edison, NJ, 08820-2417
732/494-8660; fax 732/548-9725
info@jobinyvon.com; www.jobinyvon.com

New Product: Handheld Raman Systems.

HORIBA presents its Jobin Yvon line of optical spectroscopy and imaging systems and components for fluorescence, Raman, PL and Ellipsometry. Included are turnkey systems, CCD detectors, spectrometers and sources, plus custom OEM gratings, components and complete handheld Raman systems at a shocking price. Innovation you would expect from the market leader. Contact: Daniel Meyer, Sales Manager, Optical Spectroscopy, Daniel.Meyer@jobinyvon.com; Nicolas Vezard, Vice President, OEM, nicolas.vezard@jobinyvon.com.

Hoya Corp. USA

#2032



101 Metro Dr Ste 500, San Jose, CA, 95110
408/441-3300; fax 408/451-9524
www.hoyaoptics.com

HTA Photomask

#6256

1605 Remuda Ln, San Jose, CA, 95112
408/452-5500; fax 408/452-5505
sales@htaphotomask.com; www.htaphotomask.com

New Product: Photomasks can now be manufactured with see-through chrome up to 15 inches in size.

HTA Photomask is a full service Mask Company. We manufacture Photomasks of all types of circuit patterns and optical patterns for many industries. We manufacture imaged optical components on many substrate types and of many optical coatings. Contact: Mykola Kulishov, Director of Business Development, sales@htaphotomask.com; Kenneth Caple, Manager, sales@htaphotomask.com.

Huanic Corp.

#1938

No 67 Jinye Rd Hi-tech Zone, Xi'an Shanxi, China, 710077
86 29 81881001; fax 86 29 81881011
www.huanic.com

New Product: We have min. green laser modules and standard blue-violet laser modules.

Huanic Corporation is specialized in R&D, manufacturing industrial Laser products; our major products include; Laser diode modules series, Laser positioning devices, Laser aiming devices and core components for laser instrument, etc. The company is also an OEM manufacturer, we offer customized specific designs and products to provide you with optimal laser system solution. Contact: Bao Yanling, Market Manager, wenhui@huanic.com.

Ibsen Photonics

#6279

Ryttermarken 17, Farum, Denmark, DK-3520
45 4434 7000; fax 45 4434 7001
inquiry@ibsen.dk; www.ibsenphotonics.com

New Product: PING telecom gratings, high power gratings, I-MON FBG Sensor System Interrogation Monitors.

Ibsen's Fused Silica Transmission Gratings provide high efficiency, high dispersion and highest power/energy handling. Grating types include Pulse Compression/Beam Combiner gratings, telecom gratings for ROADM/WSS, spectrometer gratings and Phase masks for FBGs and waveguides. Ibsen's OEM Spectrometer modules are based on Ibsen gratings. The I-MON family of FBG Sensor System Interrogation Monitors offer very fast measurement frequency, high resolution, low power consumption and compact size. Contact: Kristian Buchwald, Sales and Marketing manager, kjb@ibsen.dk.

ICA Corp.

#1933

12130 Brockton Ln, Minneapolis, MN, 55369
763/428-2800; fax 763/428-4230
www.icacorp.com

Contract manufacturer providing build-to-print metal fabrication of component parts and assemblies to the imaging, optics, medical, scientific instrumentation, and electronics industry. Delivering a wide range of capabilities including close tolerance CNC machining, opto-mechanical component machining, custom electronic enclosures, and sheet metal fabrication. We can suggest material types, tolerances, and finishes for manufacturability. Contact: Susan Goran, National Sales Manager, sgoran@icacorp.com; Kevin Schmuhl, Operations Manager, kevin@icacorp.com.

id Quantique SA

#733

Chemin de la Marbrerie 3, Carouge/Geneva, Switzerland, 1277
41 22 301 83 71; fax 41 22 301 83 79
sales@idquantique.com; www.idquantique.com

New Product: New Product: 900-1150 nm InGaAsP APD, id400.

Photodetection modules including the new model id400 for single photon detection at 1064nm. Also presenting the id100 silicon photon counter for visible-NIR and the id201 InGaAs photon counter for telecom wavelengths. The id100 has the world's timing of 40 ps and noise as low as 1Hz. The id201 has adjustable quantum efficiency to 25%. Contact: Jim Melnyk, Applications Engineer, melnyk@boselec.com.

IEC-Berlin GmbH

#1801

c/o German Pavilion, Torstr 124, Berlin, Germany, 10119
49 30 2839390; fax 49 30 28393928
broede@iecberlin.de; www.iecberlin.de

II-VI Infrared

#1935

375 Saxonburg Blvd, Saxonburg, PA, 16056
724/352-1504; fax 724/352-4980
info@iivinfrared.com; www.iivinfrared.com

II-VI INFRARED, the world leader in CO₂ laser and infrared optics, designs and produces lenses, mirrors, windows, partial reflectors, beam splitters, phase retarders rhombs, beam expanders, polarizers, wave plates, modulators and more. IR materials include ZnSe, ZnS and ZnS MultiSpectral. Capabilities include optical design and engineering, optics manufacturing, diamond turning, thin film coating, optical assemblies, world-class quality assurance and international sales and support. Contact: Tom Neff, Regional Manager, Americas, tneff@ii-vi.com.

ilis GmbH

#1801

Konrad-Zuse Str 12, Erlangen, Germany, 91052
49 9131 9747790; fax 49 9131 9747799
info@ilis.de; www.ilis.de

New Product: StrainMatic® M4 imaging polarimeters for precise measurement of the birefringence distribution.

ilis GmbH develops, manufactures and distributes software, measurement technology and automatic testing equipment for quality assurance in the glass and optics industry. With the measuring and testing instruments of the StrainMatic® series the company designs imaging polarimeter systems for the automatic and objective measurement of the stress birefringence in glass and plastics. Contact: Henning Katte, info@ilis.de.

ILX Lightwave Corp.

#5084

31950 E Frontage Rd, Bozeman, MT, 59715
800/459-9459; fax 406/586-9405
sales@ilxlightwave.com; www.ilxlightwave.com

ILX Lightwave is a market and technology leader in instrumentation and test systems for photonic component research, development and manufacturing. ILX Lightwave is headquartered in Bozeman, MT. Contact: Drew Ruderman, Sales Engineer, sales@ilxlightwave.com.

Image Engineering Dietmar Wüller

#1801



Augustinusstr 9D, Frechen, Germany, 50226
49 2234 912141; fax 49 2234 912142
info@image-engineering.de; www.image-engineering.de

New Product: Quality Measurement Tool, MTF Measurement, Noise Measurement, System Test, Test Chart and Illumination.

We produce Image Quality Test Equipment like Esser Test Charts and Illuminator and make Image Quality Tests. Contact: Pascal Steinmetzer, Sales Manager, p.steinmetzer@ivent.de; Uwe Artmann, Software Engineer, u.artmann@ivent.de.

Imagine Optic

#527

18 Rue Charles De Gaulle, Orsay, France, 91400
33 1 648 61560; fax 33 1 648 61561
contact@imagine-optic.com; www.imagine-optic.com

New Product: Mirao 52-e is a unique deformable mirror featuring uncomparable deformation capability.

Imagine Optic is the world's leading providers of Shack-Hartmann wavefront sensing, adaptive optics technologies and services in applied optics. We work with scientists and industrials in domains including pure science, industrial quality control, space and defense, semiconductors... From X-EUV, through the visible light spectrum and on to NIR (near infrared), we develop, manufacture, distribute and support the largest range of wavefront measurement and correction technologies available. Contact: Jerome Ballesta, US Sales Manager, jballesta@imagine-optic.com; Mathieu Bardon, Sales Engineer, mbardon@imagine-optic.com.

IMM Photonics GmbH

#722, 1801

Ohmstr 4, Unterschleissheim, Germany, 85716
49 89 3214120; fax 49 89 32141211
info@imm-photonics.de; www.imm-photonics.de

IMM Photonics GmbH - Competence in Laser Technology, Optoelectronic and Fiber optic - is one of the leading suppliers with its own development and production department. Products on the fair: OCTOLIGHT is a fiber coupled high power LED module. Laser Diode Modules in high quality... Products: Laser Diodes, DFB/FP Laser Diodes, Laser Diode Modules, Laser Diode Collimators, Solid-State Laser DPSS, Special LED's Filter, LED Pointlight Collimators, Plastic Optics Laser Diode, Driver-IC's. Contact: Sales, sales@imm-photonics.de.

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IMPEx HighTech GmbH

#6088



Hovesaatstr 6, Rheine, Germany, 48432
49 5971 981650; fax 49 5971 981659
sales@impex-hightech.de; www.impex-hightech.com

New Product: 10 A Laser Diode Driver + 2 integrated PID (autotune) temperature controller (up to 4) + PC software.

Impex HighTech is manufacturer of lasers, custom optics and optical crystals. Core business is sapphire crystal growth and laser crystals. Since several years Impex HighTech also produces its own real monolithic, passively q-switched lasers (Nd:YAG / Cr4+:YAG) at 1064 nm and 532 nm with > 300 µJ at 4 kHz repetition rate and 2 ns pulsewidth. To complete the product range Impex offers also continuous wave (CW) lasers (longitudinal multimode and single frequency) at 1064 nm and 532 nm. Contact: Jens Meyer, Laser Sales, meyer@impex-hightech.de; Norbert Munser, CEO, munser@impex-hightech.de.

IMRA America, Inc.

#2001



1044 Woodridge Ave, Ann Arbor, MI, 48105
734/930-2560; fax 734/930-9957
lasers@imra.com; www.imra.com

IMRA is a world-leading developer and manufacturer of ultrafast fiber lasers for commercial, OEM and scientific applications with a track record of more than 10 years delivering products. IMRA's pioneering ultrafast technology includes Femtolite Series oscillators and FCPA µJewel Series amplified lasers- compact, maintenance-free solutions for turnkey use in biomedical, materials processing and instrumentation applications.

IMT Masken und Teilungen AG

#5046

Im Langacher, Greifensee, Switzerland, CH-8606
41 1 943 1900; fax 41 1 943 1901
info@imtag.ch; www.imtag.ch

New Product: Our new Reactive Ion Etching process enables us to achieve feature sizes as small as 0.25 microns.

Supplying your needs for structured coatings, reticles, calibration plates for machine vision, encoder disks and electrically conductive layers, IMT is a world leader in coating technology and microlithography. With over 50 years experience and highly automated processes, quality and repeatability are our primary goals. We truly are "Precision on Glass". Come and see what we can do for you. Contact: Robert Trottini, Sales Manager, rtrottini@imtmask.com.

Incom, Inc.

#1532



294 Southbridge Rd, Charlton, MA, 01507
508/765-9151; fax 508/765-0041
sales@incomusa.com; www.incomusa.com

New Product: Fiberoptic Interrogated (FOI) Microwell Biochips are used in analytical and diagnostic applications.

Incom, Inc. is the world leader in rigid, fused fiberoptics for use in commercial applications. Our fiberoptic components, including faceplates, tapers, and glass microstructures, are used in a variety of applications. Incom serves the life science, medical, scientific, dental, defense, and homeland security markets. Contact: Jeffrey Solari, Product Development Manager, jbs@incomusa.com; Allan Narris, Sales Engineer, aln@incomusa.com.

Photonics West Exhibitor Directory

Industrial Laser Solutions Japan

#S7

Aihara Bldg, 2-13-1 Hirakawa-cho, Chiyoda-ku Tokyo, Japan, 102-0093

81 3 3556 1575; fax 81 3 3556 1576

ex-press@ex-press.jp;

Industrial Laser Solutions Japan was launched in April 2007. Published quarterly (Jan, Apr, Jul and Oct) to reach 8,000 industrial leaders in Japan -one of the biggest markets for industrial lasers. Contact: Manami Konishi, Publisher, manami.konishi@ex-press.jp.

Infinite Graphics Incorporated

#6084

4611 East Lake St, Minneapolis, MN, 55406

612/721-6283; fax 612/721-5311

sales@igi.com; www.igi.com

New Product: Reduce photoresist lift-off and cleaning by using IGI's new optically clear mask coating, X-301.

IGI provides Precision Imaging. 3D photoresist patterning and Grayscale imaging of thin and thick photoresist. Other services include photomasks, ablation masks, photoplotting, imaging of glass parts, metallization, protective coatings, custom software and engineering solutions. IGI can image on parts of all sizes including thick substrates and sizes up to 40". IGI has over 35 years of experience in understanding customers' needs and providing the best services and software. Contact: Pete Maitland, Sales Manager, pmaitland@igi.com; IGI Sales Team, Sales.

Infinite Optics Inc.

#6285



1712-F Newport Cir, Santa Ana, CA, 92705

714/557-2299; fax 714/557-2170

info@infiniteoptics.com; www.infiniteoptics.com

Infinite Optics specializes in standard and custom thin-film coatings from 193nm's to 25 microns. Our services include OEM production, proto-type development, special applications, optical fabrication and quality control. We are committed to always satisfying our customer's requirements and specifications. Contact: Geza Keller, geza@infiniteoptics.com; Dan Houston, dan@infiniteoptics.com.

Infrared Fiber Systems

#1113

2301-A2 Broadrich Dr, Silver Spring, MD, 20904

301/622-7131; fax 301/622-7136

fiber@infraredfibersystems.com; www.infraredfibersystems.com

Infrared Fiber Systems is a leading supplier of infrared transmitting fibers (HP™ fibers) for high-power Er:Yag and Er:YSGG dental, medical and industrial lasers. Contact: Alex Tchep, VP Operations, fiber@infraredfibersystems.com.

Infrared Focal Systems, Inc.

#1113



2301-A Broadburch Dr, Silver Spring, MD, 20904

301/622-9546; fax 301/622-7135

info@infraredfibersystems.com; www.infraredfibersystems.com

IFS manufactures infrared sensor fiber ("SG" fiber) and handheld AOTF spectrometers, as well as bulk infrared glass optics and blanks. Contact: Ken Levin, Vice President, klevin@infraredfocalsystems.com.

Infratec Infrared LLC

#6330



1111 S Main St Ste 122, Grapevine, TX, 76051

877/797-6748; fax 877/389-2668

www.infratec-Infrared.com

New Product: Wide bandwidth (3-5.0µm) mid-wave infrared detector using micromachined tunable Fabry-Perot filter.

Since 1991 InfraTec has focused on quality products and services in the 2-10µm infrared technology market. Headquartered in Dresden Germany, InfraTec has over 150 professionals supporting worldwide subsidiaries in the United Kingdom, Europe and North America. The Sensor Division brings a family of standard and custom detectors to market and is introducing a pair of new tunable Fabry-Perot devices that will open new markets in the gas and flame detection arenas. Contact: Roy Goodloe, Sales Manager, r.goodloe@infratec.de.

INGENERIC GmbH

#6130



Dennewartstr 25-27, Aachen, Germany, 52068

49 241 9631340; fax 49 241 9631349

contact@ingeneric.com; www.ingeneric.com

New Product: Line generator for annealing; Fiber coupling modules for mm-diode arrays and sm-laser diodes.

INGENERIC develops and manufactures micro-optics, beam shaping modules and OEM laser systems for high-end applications. The range of optical elements comprises FAC, SAC, beam transformation optics and customized aspheres. Optical modules are offered for efficient fiber coupling of mm- and sm-diode lasers as well as OEM laser systems for distinct intensity distributions (line, square, circle, and rectangle). Standard and customized designs are offered. Visit INGENERIC at booth #6130. Contact: Stefan Hambuecker, Managing Partner, contact@ingeneric.com; Volker Sinhoff, Managing Partner, contact@ingeneric.com.

Inlight Precision Optics Co., Ltd.

#5141



Rm 2314 Wellborne Commercial Centre, 8 Java Rd North

Point, Hong Kong, Hong Kong China

852 2887 6018; fax 852 2887 6301

www.inlightcn.com

New Product: Opto-mechanical assembly, metal parts, machinery and aspherical lens making.

We have two precision optics manufacturing sites (Beijing and Shenzhen) in China. We specialize in opto-mechanical assemblies, metal parts, machinery and precision optics components manufacturing such as cylindrical, aspherical, parabolics, prisms, ball and crystal lenses etc. Our quality system is certified with ISO9001:2000, ISO14001:2004 and OHSAS18001:1999. Our metrology laboratories are equipped with interferometers, spectrophotometer and MTF etc. to ensure the quality of our lenses. Contact: Ms. Mos Yip, Business Development Manager, mos@inlightcn.com; Mr. William Wong, General Manager, williamwong@inlightcn.com.

Innolas GmbH

#1921, 2021

Justus von Liebig Ring 8, Krailling, Germany, 82152

49 89 899360 0; fax 49 89 899360 16

info@innolas.com; www.innolas.com

Innolas GmbH was founded in 1995 and is focused to highly specialized fields of applications in the laser technology like waver marking, micro material processing, micro drilling and cutting, ablation, holography and scientific. To offer in all these fields the best solutions to our customers, we develop and produce all of our products in house. Our engineers are using the most modern methods in optical, mechanical and software design. Contact: Peter Menzenbach, Tel.: +49 89 899260-0.



METER BOARD SPONSOR

Innolume GmbH

#6204

SPIE Corporate Member

Konrad-Adenauer-Allee 11, Dortmund, Germany, 44263
49 231 47730 200; fax 49 231 47730 250
info@innolume.com; www.innolume.com

New Product: 1064nm, 1210nm, 1320nm high power diode laser; 1064nm high power SOA.

Innolume GmbH is the world-wide leading manufacturer of diode lasers in the operational range from 1064-1320nm. Contact: Guido Vogel, Business Development Manager.

INNO-SPEC GmbH

#1801

Sigmundstr 220 / B7, Nürnberg, Germany, 90431
44 911 37 66 91 0; fax 44 911 37 66 91 10
oliver.grass@inno-spec.com; www.inno-spec.com

New Product: Complete spectral imaging system for OEMs with NIR screen refresh rates of up to 360 frames/sec.

You want to make measurements? Spectrally? Analytically? Precisely and quickly, as integrated process step? For example: agent distribution in tablets, coating composition in carrier materials, food quality or the identification of different types of plastics for recycling? The solution: spectral imaging. Inno-spec provides a broad range of methods for spectral measurement, from traditional single point spectrometers to spatially resolved spectral analysis using spectral imaging. Contact: Oliver Grass, CEO, Oliver.Grass@inno-spec.de; Gerhard Stanzel, R&D, Gerhard.Stanzel@inno-spec.de.

Innovations In Optics, Inc.

#6080

SPIE Corporate Member

82 Cummings Park, Woburn, MA, 01801
781/933-4477; fax 781/933-0007
info@innovationsinoptics.com; www.innovationsinoptics.com

Innovations In Optics is a provider of high brightness LED solutions; offering standard products as well as design and production capability for custom OEM applications. The company will be exhibiting a line of high brightness LED light engine products for monochromatic and white light applications. Contact: Margaret Johnson, margaretj@innovationsinoptics.com; Thomas Brukilacchio, thomasb@innovationsinoptics.com.

Innovative Photonic Solutions

#3029

4260 US Rte 1 Ste 3, Monmouth Junction, NJ, 08852
732/355-9301; fax 732/355-9300
www.innovativephotonics.com

New Product: The I1064SB0300P is a 300 mW Single Frequency 1064 nm laser designed for pulsed fiber laser seeding.

IPS specializes in the manufacture of high performance spectrum stabilized lasers for use in Raman spectroscopy, fiber laser pumping and seeding and remote sensing applications. Our technology enables us to lock the laser to any wavelength without complex feedback mechanisms. Products include multi-mode and single frequency lasers and span the 630 nm - 2400 nm wavelength range. Lasers are available in 14-Pin BF packages or in turn-key modules with integral laser and temperature control electronics. Contact: Scott Rudder, Vice President Marketing and Sales, srudder@innovativephotonics.com; John Connolly, President and Chief Executive Officer, jconnolly@innovativephotonics.com.

INO

#1242

2740 rue Einstein, Sainte Foy, QC, Canada, G1P 4S4
418/657-7006; fax 418/657-7009
info@ino.ca; www.ino.qc.ca/

INO is a world-class technology developer and provider, using its core expertise in optics and photonics to bring to the industry custom solutions that enable more competitive products and production processes. INO produces in-house prototypes and short run products tailored to the needs of clients. INO designs and produces specialty fibers, fiber lasers, diffractive optical elements and graded reflectivity mirrors. INO also has expertise in biophotonics, micro-optics, and micro-packaging. Contact: Pierre Talbot, Business Development Manager, pierre.talbot@ino.ca.

InPhenix Inc.

#3019

250 N Mines Rd, Livermore, CA, 94551
925/606-8809; fax 925/606-8810
info@inphenix.com; www.inphenix.com

InPhenix Corporation is a leading developer and manufacturer of Indium-Phosphide (InP) and Gallium Arsenide (GaAs) based active optoelectronic chips, devices and modules for the telecom, datacom, defense, biomedical and industrial markets. InPhenix's products include Semiconductor Optical Amplifiers (SOAs), Superluminescent Light Emitting Diodes (SLEDs), Fabry-Perot Lasers and Photodetectors. Contact: Ken Chang, Sales Manager, kchang@inphenix.com; Steve Vitkovsky, Sales Manager, svitkovsky@inphenix.com.

Inrad a PPGI company

#1410

181 Legrand Ave, Northvale, NJ, 07647
201/767-1910; fax 201/767-9644
sales@inrad.com; www.ppgrpinc.com

INRAD grows crystals with important non-linear, electro-optic and optical properties, including BBO, KDP, LiNbO3 and ZnGeP2. Our crystal handling expertise is reflected in a product line that includes electro-optic Q-switches, autocorrelators and harmonic generation systems that are sold to OEM laser companies and to individual researchers. Contact: Thomas Pelnar, Senior Account Manager, tpelnar@inrad.com.

Insaco, Inc.

#5093

1365 Canary Rd, Quakertown, PA, 18951-9006
215/536-3500; fax 215/536-7750
sales@insaco.com; www.insaco.com

Institute of Photonics

#1733

Univ. of Strathclyde Wolfson Ctr, 106 Rottenrow, Glasgow, United Kingdom, G4 0NW
49 141 548 4120; fax 44 141 552 1575
simon.andrews@strath.ac.uk; www.photonics.ac.uk

Inta Technologies

#6022

2281 Calle de Luna, Santa Clara, CA, 95054
408/748-9955; fax 408/727-3027
intatech@pacbell.net; www.intatech.com

Intellevation Ltd.

#1733

5 Dalziel Rd, Hillington Park, Glasgow, United Kingdom, G52 4NN
44 141 882 0058; fax 44 141 882 9223
sales@intellevation.co.uk; www.intellevation.co.uk

Photonics West Exhibitor Directory



LANYARD SPONSOR

Intense Ltd.

#5041, 5044

Hamilton International Technology Pk, 4 Stanley Blvd, Blantyre Glasgow, United Kingdom, G72 0BN
44 1698 827 000; fax 44 1698 827 262
sales@intenseco.com; www.intenseco.com

New Product: Series 2675 Epi-Stacks, extremely high power, 905nm short pulsed diode lasers, to 75W peak power.

Using its patented Quantum Well Intermixing technology, Intense creates innovative lasers with unrivalled power, brightness and reliability. State-of-the-art manufacturing delivers exceptional performance in high power visible and IR laser diodes, bars and stacked arrays, fiber coupled lasers, and individually addressable arrays. From defense and medical to display and print applications, Intense is bringing about a revolution in the way diode lasers solve evolving optoelectronic applications. Contact: Kevin Laughlin, Vice President HPL Business Development, kevin_laughlin@intenseco.com; Berthold Schmidt, Vice President Global Product and Market Development, berthold_schmidt@intenseco.com.

International Light Technologies

#6316

10 Technology Dr, Peabody, MA, 01960
978/818-6180; fax 978/818-6181
sales@intl-lighttech.com; www.intl-lighttech.com

New Product: ILT801 Multiplexer displays up to 8 simultaneous light measurements to USB capable PC.

Since 1965, International Light Technologies, within our Sources Division, has been providing customers with off-the-shelf and customized solutions across a full spectrum of light sources including high power LEDs and modules, UV-Visible-IR lamps and specialized replacement lamps. Through our Systems Division, we have been solving the inherent difficulties in light measurement through the design and manufacture of a wide range of highly accurate light measuring instruments. Contact: Jill Fowler, Sales Manager, ilsales@intl-lighttech.com.

International Radiation Detectors, Inc.

#5034



2527 W 237th St Unit A, Torrance, CA, 90505-5243
310/534-3661; fax 310/534-3665
irdinc@earthlink.net; www.ird-inc.com

Manufacturer of stable photodiodes and associated electronics for detection of UV, VUV, EUV, soft X-ray and electron signals. Radiometric facilities for in-house characterization of products between 190nm to 2500nm; calibration at NIST or PTB available. IRD is the only NIST approved vendor for silicon photodiode transfer standards in 5nm to 250nm spectral region. Contact: Raj Korde, President, sales@ird-inc.com; Jacob Sprunck, Device Physicist, jsprunck@ird-inc.com.

Intevac Photonics, Inc.

#6018



3560 Bassett St, Santa Clara, CA, 95054
408/986-9888; fax 408/654-9869
www.intevac.com

New Product: The 110z., palm-sized Reporter® rapidly ID's materials through their unique spectroscopic signature.

Intevac, Inc. was founded in 1991 has two businesses: Intevac Equipment, the world's leading provider of magnetic media deposition equipment to the hard disk drive industry and provider of leading-edge, high-productivity etch systems to the semiconductor industry; and Intevac Photonics, the leader in the development of leading-edge, high-sensitivity imaging products, vision systems and miniature Raman instruments in military, industrial, physical science and life science markets. Contact: Minden Fox, Marketing Specialist, mfox@intevac.com; Scott Ireland, Global Sales Manager, sireland@intevac.com.

Intlvac

#6197

6-247 Armstrong Ave, Georgetown, ON, Canada, L7G 4X6
905/873-0166; fax 905/873-0168
sales@intlvac.com; www.intlvac.com

Coatings for Optical Fibers, IR Optics, General Optics: band pass and edge filters, dielectric and dichroic, cold and hot mirrors, broadband and ultra-broadband AR, bare and protected metal coatings such as Gold, Platinum, Silver, Aluminum, transparent conductive films and Diamond Like Carbon. Coatings are produced on a variety of tools by: Ion Beam Sputtering, Reactive Magnetron Sputtering, PECVD, Ion Assisted electron beam and thermal evaporation. We also supply systems with turnkey processes. Contact: Dino Deligiannis, President, dino@intlvac.com; Greg Dawn, Sales, gdawn@intlvac.com.

IntraAction Corp.

#5099

3719 Warren Ave, Bellwood, IL, 60104-2055
708/547-6644; fax 708/547-0687
sales@intraaction.com; www.intraaction.com

IntraAction manufactures a wide variety of Acousto-Optic laboratory, OEM, standard, and semi-standard modulators and frequency shifters including fiber coupled products, single and dual axis deflectors, q-switches, mode lockers and all associated drivers ranging from frequency sources to RF power amplifiers. Spectral ranges include UV to 11µm. Contact: John Lekavich, President, jl@intraaction.com.

Invest in France Agency (IFA)

#6245

77 bld Saint Jacques, Paris, France, 75014
33 1 40 74 73 19
us@investinfrance.org; www.investinfrance.org

Ion Beam Milling Inc.

#5106

1000 E Industrial Park Dr, Manchester, NH, 03109
603/644-2326; fax 603/647-6889
ionbeamnh@aol.com; www.ionbeammilling.com

Since 1982, Ion Beam Milling, Inc a ISO 90001:2000 Certified company, serves the Microelectronic, Microwave and Photonics communities in creating ultra high density micro-machined and thin film devices. The Company utilizes photolithography and ion beam milling to fabricate electronic and mechanical elements for an array of commercial, industrial, military, satellite, biomedical, optical and magnetic applications. Custom thin film circuits, laser submounts and heat spreaders are our specialty. Contact: Carmen Losanno, Sales Manager, sales@ionbeammilling.com; Rick Pergamo, Vice President, sales@ionbeammilling.com.

IPG Photonics Corp.

#1419

50 Old Webster Rd, Oxford, MA, 01540
508/373-1100; fax 508/373-1103
sales@ipgphotonics.com; www.ipgphotonics.com

IPG Photonics manufactures active fiber lasers, direct diodes and amplifiers operating at .7 - 2 microns for applications in Materials Processing, Telecommunications, and Scientific Research. Industrial lasers operating at 1 micron are available from 10 watts to greater than 50 kilowatts. These devices feature low divergence, air cooling, high electrical efficiency and unparalleled diode life. Contact: Sales, sales.us@ipgphotonics.com.

IQ Evolution GmbH

#1801

Jan-Wellem-Platz 3, Düsseldorf, Germany, 40212
49 241 8906 347; fax 49 1212 0188023
t.ebert@iq-evolution.com; www.iq-evolution.com



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Photonics West Exhibitor Directory

IRD Glass

#6520

810 E St Paul St, Litchfield, MN, 55355
320/693-7217
www.irdglass.com

New Product: IRD Glass can now grind, lap and polish Spinel, a transparent magnesium aluminate ceramic.

IRD Glass is a World Class Supplier of precision glass, optical, polished steel and ceramic components. For over twenty five years, IRD Glass has served the aerospace, defense, sensor, machine vision, laser, technical glass, optical, process control and medical industries. Their clients include a variety of global brand leaders including the likes of Boeing, Honeywell, L3, Rockwell Collins, CyberOptics, TSI, Medtronic, Boston Scientific, Alcon, and dozens more. Contact: Todd Anderson, Sales and Marketing, todd@irdglass.com; Dirk Kvale, General Manager, dirk@irdglass.com.

Iridian Spectral Technologies

#6182

1200 Montreal Rd M-50, Ottawa, ON, Canada, K1A 0R6
613/741-4513; fax 613/741-9986
inquiries@iridian.ca; www.iridian.ca

The leader in optical filter solutions, Iridian Spectral Technologies designs and manufactures dielectric thin-film filters with the best transmittance, deepest blocking, and steepest edges available. Our filters address needs in applications including telecom, fluorescence microscopy, and Raman spectroscopy among others. See us for your standard filter requirements or any custom filter needs.

IRphotonics

#1700

622 McCaffrey, St-Laurent, QC, Canada, H4T 1N3
514/345-6982; fax 514/227-5210
sales@irphotonics.com; www.irphotonics.com

IRphotonics is a leading manufacturer of mid-infrared (MIR) optical fibers and materials used for applications in the defense, aerospace, process analytics, and medical industries. The optical fibers provide superior transmission from UV to mid-infrared, and they are especially suited for applications in the 2 to 4.5 range. Using proprietary fluoride fiber glass manufacturing technology and unique chemical compositions, IRphotonics provides quality fiber at a competitive cost. Contact: Ruben Burga, VP Sales, sales@irphotonics.com; Antoine Kasprzak, Sales Manager, akasprzak@irphotonics.com.

Isomet Corp.

#2030



5263 Port Royal Rd, Springfield, VA, 22151
703/321-8301; fax 703/321-8546
isomet@isomet.com; www.isomet.com

Isomet manufactures standard and custom acousto-optic Bragg cells for UV, VIS, NIR and IR wavelengths. TeO₂, PbMoO₄ and LiNbO₃ crystal materials grown in-house. Provider of optical fabrication services and AR coatings on most optical surfaces. Products include modulators, deflectors, fiber-coupled frequency shifters, Q-switches, AO tunable filters and a full range of RF drive electronics. Custom design and manufacture of laser-based systems and sub systems. Contact: Everett Taylor, VP Sales and Mktg., etaylor@isomet.com; Roman Yasinsky, Dir. Sales and Mktg., ryasinsky@isomet.com.

ISP Optics

#5040

1 Bridge St, Irvington, NY, 10533
914/591-3070; fax 914/591-3715
josephm@ispopoptics.com; www.ispopoptics.com

ISP Optics is a manufacturer of high precision infrared optical elements including aspheric and diffractive lenses, windows, domes, prisms, wedges, beamsplitters, polarizers, filters, diffusers, mirrors and micro-optics made from ZnSe, ZnS, Ge, GaAs, CaF₂, BaF₂, Si, MgF₂, LiF, KRS-5, KBr, KCl, NaCl, CsI, CdTe, Amtir, Sapphire, Crystal Quartz, Fused Silica and more. Antireflective, beamsplitter, dielectric and reflector coatings are available. Catalog, custom and OEM items. Contact: Fred White, fredw@ispopoptics.com; Joe Mignano, joem@ispopoptics.com.

Isuzu Glass Inc.

#5080



23505 Crenshaw Blvd Ste 130, Torrance, CA, 90505
310/517-1866; fax 310/517-1869
sales@isuzuglass.com; www.isuzuglass.com

New Product: Compound Parabolic Concentrators for Solar or LED applications.

Manufacturer of optical components and optical filter glass. Molded glass lenses, rod lenses, aspheric lenses. Custom and standard product. Heat absorbing filter glass, neutral density, color correcting, IR laser safety, cut on filter glass. Design, Development, Prototype and Production. Quality and economy of scale is our specialty. Contact: Mike Preston, Sales, mike@isuzuglass.com; Hiro Yokoi, Vice President, hiro@isuzuglass.com.

iXFiber SAS

#1708

Rue Paul Sabatier, Lannion, France, 22300
33 2 96 04 10 50; fax 33 2 96 04 10 60
patrice.crochet@ixfiber.com; www.ixfiber.com

New Product: Thulium Doped Double Clad Fiber and Fiber Bragg Grating for 2 μm Fiber laser application.

ixfiber is a French independent manufacturer of: Specialty Optical Fiber (PM for terrestrial and space Gyro. Erbium Doped Fiber for EDFA. Yb, Er/Yb, Tm or Nd Doped Double Clad for Fiber laser. Custom Design); Components based on Fiber Bragg Grating Technology for filter or mirror application; Sub-Assembly and Services. Contact: Patrice Crochet, Sales Manager, patrice.crochet@ixfiber.com.

J. Hauser GmbH and Co. KG

#1801

Steinstr 4a, Solms Hessen, Germany, 35606
49 6442 7108; fax 49 6442 23806
www.hauser-optik.com

Janos Technology, Inc.

#742



55 Black Brook Dr, Keene, NH, 03431
603/757-0070; fax 603/757-0069
contact@janostech.com; www.janostech.com

JTI a division of the Fluke Thermal Imaging, a world leader in design and manufacture of high-performance Thermal Imaging systems and optics. Janos utilizes state-of-the-art design, manufacturing, and test equipment to produce everything from complex opto-electronic assemblies to components. Supporting all major markets including Defense, Aerospace, Thermal Imaging, and Analytical Instrumentation. Our Catalog division offers unique, off-the-shelf solutions for many optics requirements. Contact: Cheryl Aaron, Sales, sales@janostech.com.

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JDSU

430 McCarthy Blvd, Milpitas, CA, 95035
408/546-5000; fax 408/546-4300
info@jdsu.com; www.jdsu.com

JDSU is one of the largest producers of lasers and thin film coatings. The Commercial Lasers group delivers robust laser solutions from UV to IR while addressing cost, technical, and volume needs for OEM clientele. The Custom Optics Products group advances the pace of optical coating innovation through technological leadership, state-of-the-art facilities, and full-service customer care. Our solutions support clientele in the semiconductor, biotech, display, and brand authentication markets. Contact: Chris Castle, Marketing Manager, chris.castle@jdsu.com; Chris Vomvolakis, Marketing Manager, chris.vomvolakis@jdsu.com.

JENOPTIK Diode Lab GmbH

#1227

Max-Planck-Str 2, Berlin, Germany, 12489
49 30 677987 0; fax 49 30 677987 199
info@diodelab.com; www.diodelab.com

New Product: High quality semiconductor material for diode lasers with new pump wavelengths at 792 nm and 880 nm.

JENOPTIK Diode Lab GmbH is the diode laser bar manufacturer in the Jenoptik group. As a 100% subsidiary of JENOPTIK Laserdiode GmbH, the company's main focus is also centered on quality. Jenoptik Diode Lab is specialized in the manufacturing of high quality semiconductor material needed for high-power diode lasers. The company's products for reliable lasers provide high output power, high efficiency, long lifetime and excellent beam characteristics. Contact: Dr. Jürgen Sebastian, Managing Director, juergen.sebastian@diodelab.com; Dr. Ralf Hülsewede, Manager Technology Development, ralf.hulsewede@diodelab.com.

JENOPTIK Laser, Optik, Systeme GmbH - Lasers Business Unit

#1227

Goeschwitzer Str 25, Jena, Germany, 07745
49 3641 65 4015; fax 49 3641 65 4011
laser.sales@jenoptik.com; www.jenoptik-los.com

New Product: Thin Disc Laser q-switched IR (up to 50W) and Green (up to 100W) with adjustable pulse width; Fiber lasers, Femtosecond Laser (4W@100kHz).

Lasers Business Unit of the JENOPTIK Laser, Optik, Systeme GmbH manufactures diode lasers, fiber lasers and diode-pumped-solid-state lasers for OEM and R&D customers. Target applications in material processing are marking, deep engraving, ablating, structuring, cutting and drilling for electronics, semiconductor, automotive and packaging markets. Life science laser for ophthalmology and dermatology. Lasers for show and entertainment also available. High power fiber lasers. Contact: Sven Poggel, Product Manager Material Processing, sven.poggel@jenoptik.com; Bert Kremser, Product Manager Medical Applications, bert.kremser@jenoptik.com.

JENOPTIK Laser, Optik, Systeme GmbH - Microoptics Business Unit

#1227

Goeschwitzer Strasse 25, Jena, Germany, 07745
49 3641 65 2440; fax 49 3641 65 3842
microoptics@jenoptik.com; www.jenoptik-los.com

JENOPTIK Microoptics Business Unit develops and manufactures customized assemblies and optical modules for a variety of applications in industry, semiconductor fabrication, ophthalmology and the security and defense sector. Flexibility of design, manufacturing know-how and a special base of in-house technologies are the assets to warrant our product offering to be consistently extended by new solutions which are even smarter and more complex.

#1527



GENERAL REFRESHMENTS SPONSOR

JENOPTIK Laser, Optik, Systeme GmbH - Optics Business Unit

#1227



Goeschwitzer Strasse 25, Jena, Germany, 07745
49 3641 65 3237; fax 49 3641 65 3658
optics@jenoptik.com; www.jenoptik-los.com

New Product: F-Theta Scan Lenses, Beam Expanders.

The Optics Business Unit of the JENOPTIK Laser, Optik, Systeme GmbH is a leading OEM supplier of high-precision optical components of varied shapes and materials from XUV to IR. Oriented towards customers' targets it develops and produces customized lenses, subsystems and opto-mechanical modules for the semiconductor equipment industry, laser material processing, defence and security, scanning applications, medical engineering, metrology and machine vision. Contact: Michael Kahlke, Manager Sales Optics, michael.kahlke@jenoptik.com; Ray Malcom, Vice President, Sales and Marketing of Coastal Optical Systems, Inc., ray.malcom@coastalopt.com.

JENOPTIK Laserdiode GmbH

#1227

Goeschwitzer Str 29, Jena, Germany, 07745
49 3641 65 4300; fax 49 3641 65 4392
jold@jenoptik.com; www.jold.com

New Product: Fiber-coupled high-power diode laser with 100 W from 400 nm fiber, forced air cooled.

JENOPTIK Laserdiode GmbH is the diode laser manufacturer in the Jenoptik group. Since 1993 the company has gone from a business providing products for laser researchers to a manufacturer of high-end quality diode lasers for industrial use (pumping of solid-state and fiber lasers, materials processing, medical applications). For years its main focus is centered on quality. Therefore, today the company is the quality leader in production of diode lasers with a long lifetime and high reliability. Contact: Dr. Detlev Wolff, Manager Sales and Marketing, detlev.wolff@jenoptik.com; Thomas Wittschirk, Regional Sales Manager, thomas.wittschirk@jenoptik.com.

JENOPTIK Polymer Systems, Inc.

#1227

2117 Buffalo Rd #222, Rochester, NY, 14624
585/272-6184; fax 585/424-6436
ldobosz@jenoptik-ps.com; www.jenoptik-ps.com

New Product: Solar Concentrators, MLA, Custom LED Modules, Color Measurement Modules and UV Monitoring Devices.

JENOPTIK Polymer Systems is a technology driven company well known for advancing the state-of-the-art in opto-electronic/mechanical systems and components. Our products are used in medical, sensor, automotive, solar and information technologies. We offer our customers the complete process chain: from development, design, production and coating of optical components, to assembly of opto-electronic and opto-mechanical systems with competitive pricing utilizing our global supply chain capabilities. Contact: Lynn Dobosz, President and Managing Director, ldobosz@jenoptik-ps.com.

j-fiber GmbH

#6911

Im Semmicht 1, Jena, Germany, 07751
49 3641 352 100; fax 49 3641 352 101
info@j-fiber.com; www.j-fiber.com

j-fiber is a worldwide leading specialist for multimode and singlemode optical fibers. From fiber design to preform manufacturing and fiber draw we serve the cable industry with cost-optimized high-performance fiber products for reliable use in advanced local area networks, access and premises cabling. Our specialty fiber and preform solutions support leading-edge industry, military, sensor or laser transmission technologies. Contact: Peggy Baerenklau, Head of Marketing and Sales, peggy.baerenklau@j-fiber.com; Armin Landers, Head of Quality Assurance, armin.landere@j-fiber.com.

Photonics West Exhibitor Directory

JML Optical Industries Inc.

#330

820 Linden Ave, Rochester, NY, 14625
585/248-8900; fax 585/248-8924
jml@jmloptical.com; www.jmloptical.com

New Product: Expanded-updated web-site featuring thousands of new products as well as easy on line ordering.

JML Optical is your complete precision optical supplier, designer and coater. Stock catalog items as well as custom made prototypes and high volume optics. Precision optics for medical imaging, night vision, security and defense, semi-conductor, robotic and scanning applications. ITAR registered and ISO certified. Lenses, prisms, cylinders, aspheres, mirrors, CCD/CCTV/mega pixel lenses, scan, zoom and telecentric lenses. Contact: Gregg Sadwick, OEM Sales Manager, greggs@jmloptical.com; Marty Roberts, Director of Catalog Operations, martyr@jmloptical.com.

JPSA

#1342

220 Hackett Hill Rd, Manchester, NH, 03102
603/518-3200; fax 603/518-3298
info@jpsalaser.com; www.jpsalaser.com

New Product: JPSA's newly-introduced PV-5000 is a laser workstation dedicated to PV thin film solar scribing.

JPSA provides state-of-the-art excimer laser and UV-DPSS laser systems for micro machining solutions at 157nm to 1064nm wavelengths. The company's micromachining, laser beam delivery, automation, and motion control systems are used in photovoltaic, semiconductor, biomedical, and other industrial applications. JPSA Laser also performs contract manufacturing, optical design consulting, applications development and excimer laser refurbishment services. Contact: Joshua Stearns, Sales and Marketing Coordinator, jstearns@jpsalaser.com; Bill Kallgren, Sales Manager, bkallgren@jpsalaser.com.

JT Ingram Sales and Marketing

#635

 SPIE Corporate Member

23 Alafaya Wood Ave Unit 210, Oviedo, FL, 32765
800/335-5588; fax 561/276-3402
www.jtingram.com

New Product: Q MACS Trace gas Measurement and control system; Quantum Cascade Laser Measurement and Control System.

Supplier of Fiber Optic Assemblies for use in the MID IR (up to 18µm), NIR, VIS and UV. Accessories for FTIR, fiber coupling, collimating, focusing, laser delivery, Q MAC Trace gas measurement systems, Fiber optic probes for MID IR (up to 18µm), NIR, VIS, UV. Contact: Jim Ingram, Marketing Manager, Jim@jtingram.com.

Kaiser Optical Systems, Inc.

#6250

371 Parkland Plaza, Ann Arbor, MI, 48103
734/665-8083; fax 734/665-8199
smoyer@kosi.com; www.kosi.com

New Product: Announcing larger format VPH gratings for pulse compression and astronomical spectrographs.

Kaiser Optical Systems, a world-recognized leader in the production of instruments, devices, and displays based on holographic optical elements, with over 25 years' experience designing and building head-up display combiners for military fighter aircraft, has leveraged its volume phase holographic technology to produce state-of-the-art holographic notch filters and diffraction gratings. Contact: gratings@kosi.com.

Kaiser Systems, Inc.

#1813

126 Sohier Rd, Beverly, MA, 01915
978/922-9300; fax 978/922-8374
sls@kaisersystems.com; www.kaisersystems.com

New Product: Capacitor charging power supplies in a new design offering unsurpassed reliability and flexibility.

Founded in 1980, Kaiser Systems is a specialist in the design, development, and manufacturing of OEM and custom high voltage power supplies. With a broad range of capacitor charging, pulsed power, and HV dc supplies we serve applications in medical, industrial, security, and semiconductor manufacturing markets. Kaiser has been ISO 9000 registered since 2001 and has a subsidiary operation, HPE, in Germany. Contact: Steve Klibansky, Account Manager, sklibansky@kaisersystems.com; Elise Bouchard, Customer Service Manager, ebouchard@kaisersystems.com.

Kaleido Technology ApS

#1138

Ryttermarken 15-21, Farum, Denmark, DK-3520
45 44 34 70 40; fax 45 44 34 70 41
contact@kaleido-technology.com; www.kaleido-technology.com
Kaleido Technology manufactures lenses, mirrors and replication tools by proprietary diamond-turning and -milling technology with unprecedented geometrical freedom and accuracy. Kaleido Technology has the key building block for lens wafer-scale integration through its wafer-level glass molding technology for high-precision aspheric glass lenses. Contact: Dr. Palle Geltzer Dinesen, Chief Sales Officer, Founder, pgd@kaleido-technology.com.

Kapteyn-Murnane Labs. Inc.

#1211

 SPIE Corporate Member

1855 S 57th Ct, Boulder, CO, 80301
303/544-9068; fax 303/821-2284
sales@kmlabs.com; www.kmlabs.com

New Product: Tabletop Extreme Ultraviolet Source generating highly coherent Extreme UV (EUV) / Soft X-Ray light (17-47 nm).

KMLabs is led by acknowledged world leaders in high-performance ultrafast laser systems. We manufacture versatile and robust research tools: reliable high peak/average power amplifier systems and cost-effective turnkey oscillators. Dragon/ RedDragon series multipass amplifiers produce 1-20kHz, <25-100fs pulses at up to 10W in one stage and up to 50W or 20mJ in two stages. Our high-power CEP and Extreme UV systems are proven in leading international research facilities. Wyvern series regenerative amplifiers are elegant single-box turnkey moderate and high-power systems. Contact: Jackie Inskeep at jinskeep@kmlabs.com; 303.544.9068 ext. 824.



PLASMA SCREEN SPONSOR

KDF

#6405

10 Volvo Dr, Rockleigh, NJ, 07647
201/784-5005
sales@kdf.com; www.kdf.com

KDF produces original and re-manufactured inline-sputtering tools for the mainstream silicon, emerging materials and flat-panel display markets. KDF produces an advanced cluster sputter and etch platform, the Ci. KDF systems are used in the production of semiconductors, photomasks, telecommunications networks, wireless circuits, gallium arsenide (GaAs), high-density interconnect, sensors, opto-electronics, flat panel display and radio frequency power devices. www.kdf.com.

Kent Optronics, Inc.

#6912

40 Corporate Park Dr, Hopewell Junction, NY, 12533
845/897-0138; fax 845/897-0603
info@kentoptronics.com; www.kentoptronics.com

New Product: 2-Color High Temperature IR Display, Tri-State Switchable Mirror, Variable Bandwidth Tunable Filter.

KOI is a high-tech firm specialized in advanced product development for photonics, display, imager, glazing and automobile industries by leveraging on its outstanding liquid crystal technologies, emphasizing on spectrum flexibility, efficiency, and response time. We offer a wide range of products of spectrally responsive notch filters, Tri-State Thin Film Switchable Mirror, Variable Bandwidth Tunable Filters, automated laser protection devices, and 2-Color High Temperature IR Scene Generator. Contact: Le Li, CEO, leli@kentoptronics.com; Eva Sun, Manager, ysun@kentoptronics.com.

Kentek Corp

#6818

SPIE Corporate Member

Laser Safety Division, 1 Elm St, Pittsfield, NH, 03263-3304
603/435-5580; fax 603/435-7441
info@kenteklaserstore.com; www.kenteklaserstore.com

KENTEK offers a wide range of laser safety products including over 500 types of laser eyewear and laser safety eye protection, laser curtains, laser barriers, laser safety warning signs, laser safety windows and acrylic. In addition, KENTEK is your source for industrial laser components, parts and services, including laser optics, mirrors, protection disks, laser rods, laser cavities, flow tubes, flash lamps, filter slides and laser cavity replating. Contact: Jim Bishop, Sales Manager, jbishop@kenteklaserstore.com.

Keopsys Inc.

#5110

1195 Pennsylvania Ave, Bethlehem, PA, 18018
610/758-8428; fax 610/758-8426
webslaes@keopsys.com; www.keopsys.com

New Product: KULT: Keopsys Ultra-compact Laser Transmitter for telemetry, range-finding or 3D imaging.

Keopsys' fiber amplifiers and lasers, benchtop and OEM, deliver high output powers - up to 30W CW or 25kW peak - in the 1µm or 1.5µm bands. These efficient devices rely on standard or polarization maintaining fibers and find their application in industrial, medical and military environments. Contact: Yves Deiss, Regional Sales Director - West Coast, ydeiss@keopsys.com; Alexandre Amavigan, Regional Sales Director - East Coast, aamavigan@keopsys.com.

Keting Optical Technology Inc.

#6151

No. 21 Tianhe Rd, Yuhang Economic Development Zone, Yuhang District Hangzhou, China, 311100
86 571 892633886; fax 86 571 892633883
www.koti.hz.com.cn

New Product: Various interference filters from near ultraviolet to near infrared wavelength range.

Keting Optical Technology Inc. (KOTI) is an optical coating manufacturer in China. KOTI produces optical coatings for LCD/DLP/LCOS projectors, DSC/DV/DVD digital products and develops optical coatings for advanced optical instruments. Products are exported to advanced countries such as Japan, United States and Europe. KOTI owns more than 20 high vacuum coating machines and is equipped with inspection instruments. KOTI received certificate of ISO9001 in 2002 and certificate of Green Partner from Sony in 2007. Contact: Xianfen Jiang, Deputy General Manager Marketing Department, jxf@koti-hz.com.cn.

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Gooch & Housego

www.goochandhousego.com
sales@goochandhousego.com

Optical Engineering at its best – World-leading design & manufacture of Acousto-Optic, Electro-Optic, Fiber-Optic, & Precision Optical Components & Sub Systems, combined with Materials Engineering, Crystal Growth, Polishing & Coatings for the Industrial & Research, Aerospace & Defence and Biomedical & Life Sciences market sectors

enabling optical technologies

Kigre, Inc.

#1040

SPIE Corporate Member

100 Marshland Rd, Hilton Head Island, SC, 29926
843/681-5800; fax 843/681-4559
kigre@kigre.com; www.kigre.com

New Product: NEW MK-830 compact eye-safe 4mj 30Hz 1535nm laser suitable for range-finding, imaging and LIBS. MK-81, MK-88 and MK-830 High Efficiency Side Pump, (HESP) Diode Pumped Solid State Lasers (DPSS).

Kigre manufactures laser transmitters and laser components. Kigre's compact eye-safe high power diode pumped 1.5µm lasers are suitable for laser range-finding, range-gated imaging and LIBS. The MK-81 (1Hz), MK-88 (10Hz) and MK-830 (30Hz) are 1535nm Q-switched laser products based upon conduction cooled High Efficiency Side Pump, (HESP) Diode Pumped Solid State Lasers (DPSS) technology. Contact: Michael J. Myers, President, kigreinc@cs.com; Jeffrey A. Myers, Vice President, jeffmyers@hargray.com.



Free Popcorn

Popcorn carts will be located in the back of Exhibition Hall 3 and South Hall 1 and will be open from 11:00 am to 4:00 pm, Tuesday through Thursday.

Photonics West Exhibitor Directory

Kimmon Electric US, L.P.

#1208



METER BOARD SPONSOR

7002 S Revere Pkwy Ste 85, Centennial, CO, 80112
303/754-0401; fax 303/754-0324
www.kimmon.com

New Product: DENICAFC 442-20 single frequency DPSS laser system. 20mW @ 442nm TEMoo.

Kimmon, the world's oldest and largest manufacturer of Helium Cadmium lasers offers a total of 38 different HeCd laser models at 325nm (2-100mW), 442nm (14-180mW) or both laser lines simultaneously. Additionally, we also manufacture a new line of solid state lasers at 375nm, 408nm, 445nm, 1064nm. Kimmon also sells single frequency DPSS lasers at 442nm (20mW), 488 (20mW) 532nm (30mW-1W), 1064nm (500mW-1W) which are manufactured by Klastech Karpushko Laser Technologies. Contact: Patrick Townsend, General Manager, p.townsend@kimmon.com; Dan Lloyd, dan@kimmon.com.

Kiyohara Optics USA

#6310

929 Whitehall Ln, Redwood City, CA, 94061
650/255-7751

New Product: High Performance 8" Aperture Beam Expander: BE300P.

Kiyohara Optics Inc. was founded in 1949 and has conducted businesses in the United States since early 80's. We design, make and sell optical components and systems, such as interferometers. We listen to our customers and respond to their needs. We have participated in various joint Research and Development projects with National labs and Universities as well as private industries. Contact: Aki Tomita, President, Kiyohara Optics USA, atomita@kopticsusa.com; Junko Kiyohara, Overseas Sales, Kiyohara Optics Inc., junko.k@koptic.co.jp.

KLASTECH - Karpushko Laser Technologies GmbH

#6258



Konrad-Adenauer-Allee 11, Dortmund, Germany, 44263
49 231 47730 648; fax 49 231 47730 620
info@klastech.de; www.klastech.de

New Product: First Single-Frequency Solid State Laser at 442 nm. Replacement of HeCd-Lasers.

Based on the proprietary frequency conversion laser technology (DENICAFC*), KLASTECH is developing, manufacturing and selling single-frequency Diode Pumped Solid State Lasers (DPSSL) in Visible, Infrared and UV range of spectrum. Contact: Roger Brueggemann, Sales and Marketing Manager, r.brueggemann@klastech.de.

KLA-Tencor Corp.

#6178



160 Rio Robles, San Jose, CA, 95134
408/875-3000; fax 408/875-4144
info@kla-tencor.com; www.kla-tencor.com

At KLA-Tencor's Surface Metrology product group, our market segments span from semiconductor and data storage manufacturing, to MEMS, optoelectronics, material science and general scientific research. Our products range from benchtop stylus and optical profilers used in research environments to automated high resolution profilers for advanced IC and data storage production facilities. Contact: info@kla-tencor.com.

Koheras A/S

#5132



Blokken 84, Birkerød, DK, Denmark, DK-3460
45 4348 3900; fax 45 4348 3901
enquiry@koheras.com; www.koheras.com

New Product: Industrial White Light Laser SuperK 460-2400nm. Vibration Insensitive ultra low noise Fibre Laser.

Koheras is the leading company within Supercontinuum source and ultra low noise fibre laser. We supply to all kind of sensing, tomography spectroscopy applications within the gas and oil exploration, LIDAR, Hydrophone, Microscopy, Ophthalmology, Semiconductor and other. Contact: Chuong Tran, Vice President Sales and Business Development, cht@koheras.com; Soeren Loevgreen, Sales Manager, sl@koheras.com.

Kohoku Kogyo Co., Ltd.

#6393

1623 Takatsuki, Takatsuki-Cho Ika-Gun, Shiga, Japan, 529-0241
81 749 85 6260; fax 81 749 85 3215
sales@kohokuamerica.com; www.kohokuamerica.com

New Product: Single, multi-hole ferrules, PM fiber arrays, pigtailed two-dimensional arrays, microhole arrays.

Kohoku Kogyo Co. (est. 1959) in Shiga (near Kyoto), Japan is a major supplier for multi-hole ferrules, multi-channel fiber arrays, micro-hole arrays. In 2002 and 2003 Kohoku silica 2 -channel fiber array was chosen the best in Ultra-High precision Fiber array by "Lightwave". Contact: Boris Reichman, President, Kohoku America Inc., breichman@kohokuamerica.com.

Komatsu Electronics Inc.

#6311

3-25-1 Shinomiya, Hiratsuka, Kanagawa, 254-8543
81 463 23 3697; fax 81 463 24 6749
www.komatsu-electronics.co.jp

New Product: High Qc, large deltaT multistage thermo module; mini TEC; temperature control equipment.

Komatsu Electronics has changed the name to KELK Ltd. from July 1, 2008. We intend to concentrate on providing highest performance thermoelectric module and temperature control equipment by strengthening the coalition with Komatsu. We are a fully-integrated manufacturer for temperature control products. We research, develop and manufacture thermoelectric materials, thermo-modules, heat exchangers and temperature control equipment to respond every customer's high expectations and reputations. Contact: Takahiro Murase, General Manager, Sales, takahiro_murase@kelktech.komatsu.co.jp; Takuya Kobayashi, Sales, takuya_kobayashi@kelktech.komatsu.co.jp.

Kopp Glass, Inc.

#3031

2108 Palmer St, Pittsburgh, PA, 15218
412/271-0190; fax 412/271-4103
dbernardi@koppglass.com; www.koppglass.com

Kreischer Optics, Ltd.

#5121

1729 Oak Dr, McHenry, IL, 60050-0306
815/344-4220; fax 815/344-4221
optics@kreischer.com; www.kreischer.com

Uses CNC technology to manufacture custom optical components including aspheric, cylindrical and spherical lenses, mirrors, prisms, windows and master test glasses. Also provides subassemblies, lens design and testing services. Rapid prototyping available including custom aspheres. Contact: Cody B. Kreischer, President, optics@kreischer.com; Jeff Beckler, Special Projects Manager, jeff@kreischer.com.

Krell Technologies

#5125

1126 Campus Dr W, Morganville, NJ, 07751
732/617-7091; fax 732/617-7092
sales@krelltech.com; www.krelltech.com

New Product: Radian System for polishing bare fibers at variable angles.

Manufactures automated connector polishing/inspection systems for high volume production, portable polishers for FTTX/LAN/CATV installation and repair, retro-polishers for damaged connectors, waveguide polishers, in-line video inspection equipment, precision cleaving systems, and custom component jig fixtures. Also offers lensing systems for processing bare fiber into conical, chisel and angle shapes. Manufactures the CleanTouch Connector Cleaner and SATWipe 100% alcohol wipes. Contact: Al Cheswick, VP Sales and Marketing, acheswick@krelltech.com.

Kryotherm Thermoelectrics

#6302

1894 Hwy 50E Ste 4304, Carson City, NV, 89701
877/825-3006
sales@kryotherm.com; www.kryotherm.com

New Product: Big Thermoelectric Module: 55x55mm, 350w, 24V. Small Thermoelectric Module: 2x2mm, 2.4mm.

High performance thermoelectric modules. Est. 1961. Highest efficiency. Contact: Phil Hersey, Sales Manager, sales@kryotherm.com; Tina Davis, info@kryotherm.com.

Kugler of America LTD

#1801

SPIE Corporate Member

48 South Rd Unit I, Somers, CT, 06071
860/749-6400; fax 860/749-6600
info@kuglerofamerica.com; www.kuglerofamerica.com

New Product: Microgantry Series Micromachining Syst. Laser / Optical /Mech.micro machining. Acc.250 nm @ 3-sigma.

We are a leading manufacturer of ultra-precision Machining Systems for Optical Surfaces, Optical 3D Structured Surfaces, Waver-thinning, and Micromachining applications, as well as Laser Micro machining Eg: Fly-cutters, Drum-Turning machines, Micromachining Systems, Air Bearing Systems, Custom Metal Mirrors, Optical structured surfaces, CO₂-Laser Beam Delivery Systems and Laser Mirrors for OEM and Scientific end users. Contact: Meinrad Schirmeister, General Manager, info@kuglerofamerica.com.

Kurt J. Lesker Company

#6307

1925 Route 51, Clairton, PA, 15025-3681
412/387-9200; fax 412/384-2745
sales@lesker.com; www.lesker.com

New Product: Introducing a new line of ferrofluid-sealed rotary drives, useful in many vacuum applications.

R&D and batch production tools for the optical, photonics and photovoltaic industries. Fully-automated vacuum systems for PVD and ALD, chambers, components, film deposition sources, and pure materials. E-beam sources; thermal evaporation sources, including low temp sources for organic films; R&D and production-sized sputter sources; electrical, motion, and gas/liquid feedthroughs; pumps; valves; and pressure/flow measurement devices. Thin film deposition systems for solar panel production and R&D. Contact: Frank Hernandez, Sales Mgr, frankh@lesker.com; Shawn Jones, Sales Mgr., shawnj@lesker.com.

Kyocera America Inc.

#6903

8611 Balboa Ave, San Diego, CA, 92123
858/576-2600; fax 858/569-9412
iris.labadie@kyocera.com;

Kyocera America offers a broad line of semiconductor package products based on advanced ceramic and plastic material technologies. Kyocera also offers assembly, engineering and plating services. ISO 9001/14001 and ITAR Registered and DSCC Certified. Contact: Iris Labadie, Product Marketing Specialist - Development Group, iris.labadie@kyocera.com; Arne Knudsen, General Manager, Development Group, arne.knudsen@kyocera.com.

Kyosemi Opto America Corp.

#6352

3003 Bunker Hill Ln Ste 102, Santa Clara, CA, 95054
408/492-1486
info@kyosemi-opto.com; www.kyosemi-opto.com

New Product: KPDU37S1 InGaN PD 360-380nm sensor; KPDU27 GaN PD 254nm sensor; KEDE1458K InGaAs LED.

Kyosemi has over 28 years experience designing and manufacturing components for Optical Sensing, Control Sensing, Optical Communication and Photo-Voltaic Energy using Silicon and Compound Semiconductor materials. Product line-up includes: UV LED and Photo-Detectors, InGaAs NIR PD, SiAPD, InGaAs APD, PD Arrays (Si, GaAs and InGaAs), Mini-Can (World smallest TOCAN package), VCSEL, Parallel Beam LED, Pin-Point LED, Multi-wavelength LED, SMD Package options. Contact: Steve Iwashita, Vice President Sales and Marketing, iwashita@kyosemi.co.jp.

L-3 Communications, Tinsley Laboratories, Inc.

#621

SPIE Corporate Member

4040 Lakeside Dr, Richmond, CA, 94806
510/222-8110; fax 510/223-4534
sales@asphere.com; www.asphere.com

Manufacturer of custom precision optical components including complex aspheric surfaces for reflective and refractive systems from 50mm to 1.5 meters in size and a wide variety of materials, including glass, beryllium and silicon carbide. Founded in 1926 and also known in the industry as the "Asphere Company", Tinsley has many years of experience fabricating precision optics in such areas as Space and Astronomy, Laser Fusion, Surveillance and Tactical. Contact: Clay Sylvester, Director of Sales and Marketing, clay.sylvester@l-3com.com; Teri Bordeau, Sales Support Administrator, teri.bordeau@l-3com.com.

Labsphere, Inc.

#541

SPIE Corporate Member

231 Shaker St, PO Box 70, North Sutton, NH, 03260-0070
603/927-4266; fax 603/927-4694
labsphere@labsphere.com; www.labsphere.com

New Product: HalfMoon Systems offer larger LEDs to be measured in half the footprint of an integrating sphere.

For 30 years Labsphere has provided test and measurement systems for light measurement and sensor calibration, diffuse reflectance materials and reflectance spectroscopy accessories. Products include uniform light sources to calibrate imaging devices and camera systems in the visible and IR; light measurement systems for lasers, LEDs and traditional light sources; and reflectance standards for calibrating spectroscopic measurement systems. Contact: Richard Corbyn, Director of Sales and Business Development - International, rcorbyn@labsphere.com; John Johansen, Director of Sales and Business Development - Americas, jjohansen@labsphere.com.

Photonics West Exhibitor Directory

LaCroix Optical Co.

#6136



PO Box 2556, Batesville, AR, 72503
870/698-1881; fax 870/698-1880
karen@lacroixoptical.com; www.lacroixoptical.com

LaCroix Optical Co., a leading manufacturer of custom precision optics for more than 60 years, specializes in achromats, lenses, windows, prisms, wedges and mirrors. An ISO 9001:2000 registered company, LaCroix Optical Co. can supply your optical components in any volume. With a unique combination of modern and conventional production and testing equipment - plus an in-house coating facility - LaCroix Optical Co. is your source for custom precision optics. Contact: Tom Cox, Engineering Manager, tom@lacroixoptical.com; David Cossey, Manufacturing Engineer, david@lacroixoptical.com.

Laird Technologies

#6321

16401 Swingley Ridge Rd, Chesterfield, MO, 63017
636/898-6000; fax 636/898-6100
info@lairdtech.com; www.lairdtech.com

Laird Technologies, a global leader in thermal management, provides solutions for photonic systems and sub-components including thermoelectric (Peltier) modules, assemblies and chillers for temperature stabilization of laser systems. The company provides global team coverage with full-line product capability, rapid response, as well as complete engineering and design solutions to serve customers. Contact: Hans Agren, hansa@supercool.com; Ellie Rovai, Marketing Director (Marcom), ellie.rovai@lairdtech.com.

Lambda Research Corp.

#115



25 Porter Rd, Littleton, MA, 01460-1434
978/486-0766; fax 978/486-0755
sales@lambdare.com; www.lambdare.com

New Product: TracePro 5.0 includes powerful new features including enhanced source modeling.

Lambda's optical design software, TracePro and OSLO, enables product innovation in Lighting, Display, Life Sciences, Industrial Manufacturing, Aerospace, and Energy. It sets itself apart as a cost-effective, single source for optical, opto-mechanical and illumination design software solutions. Its products include - TracePro, highly differentiated by its ease-of-use and accuracy and OLSO, renowned for its power and flexibility in optical design. Contact: Barbara Calt, Director of Sales, sales@lambdare.com.

Lambda Research Optics Inc.

#727



1695 W MacArthur Blvd, Costa Mesa, CA, 92626
714/327-0600; fax 714/327-0610
lambda@lambda.cc; www.lambda.cc

New Product: VeLo¹² is an improved replacement lens for the CO₂ lasers. Total Absorption is <0.12% (typical).

Lambda Research Optics is a premier manufacturer of laser optics for the photonics industry. Lambda's expertise is in thin film coatings for high power laser applications covering the UV, Visible and IR spectrums. In addition, Lambda produces custom optics tailored to each customer's unique requirements. Lambda also introduces a line of focusing lenses designed specifically for fiber lasers (1030 - 1080nm) applications. Visit Lambda's website for more information. Contact: Jae Oh, Marketing Manager, joh@lambda.cc; James Choi, Sales Manager, jchoi@lambda.cc.

Lambert Instruments

#6270

Oosteinde 16, Roden, The Netherlands, 9301 ZP
31 50 5018461; fax 31 50 5010034
info@lambert-instruments.com; www.lambert-instruments.com

New Product: The HI-CAM CR, gated intensified high-speed camera for image recording up to 100.000 fps.

Lambert Instruments specializes in intensified cameras for high-speed imaging and systems for fluorescence lifetime imaging microscopy (FLIM); development of Intensified CCD cameras and complete imaging systems making use of Image Intensifiers with or without gating or modulation. The products are supported by software for image acquisition, processing and analysis. Standard products: FLIM system, HI CAM CR intensified high-speed camera, Intensified CCD cameras and Cooled CCD cameras. Contact: Jeroen Wehmeijer, Product Manager, jeroen@lambert-instruments.com.

Lanmark Controls Inc.

#6807



1740 Massachusetts Ave, Boxborough, MA, 01719
978/264-0200; fax 978/264-0203
info@lanmarkcontrols.com; www.lanmarkcontrols.com

New Product: Lanmark Controls Inc. presents the Maestro Laser Marking Controller.

Lanmark Controls Inc. develops and supplies the WinLase Professional and WinLase LAN laser marking software Suites and the Lanmark Embedded Controller card technology, providing complimentary ancillary products for the OEM laser system integrator market worldwide. Contact: Chris Oskirko, Vice President of Sales and Marketing, coskirko@lanmarkcontrols.com.

Larsen Equipment Design, Inc.

#5126

1117 NW 52nd St, Seattle, WA, 98107-5130
800/789-5121; fax 206/789-7756
www.larsenequipment.com

Larsen Equipment Design is your USA manufacturer of precision optical polishing equipment for micro and miniature lenses. Since 1981 we have been recognized as the source for your micro optics manufacturing needs. Our polishers are made with sturdy stainless steel cases and sealed spindles for worry free operation. Have tooling requirements? Our engineering department can help. Turn to us as your precision optics manufacturing resource. Contact: Erik Larsen, President; erik@larsenequipment.com.

LASCAD

#746

5 Echo Pl, Larkspur, CA, 94939
415/924-6300; fax 415/924-6399
hskolnik@hotmail.com; www.las-cad.com

Laser 2000 Benelux CV

#6270

Voorbancken 13A, Vinkeveen, The Netherlands, 3645 GV
31 297266191; fax 31 209 266191
info@laser2000.nl;

Laser 2000 is a specialized distributor of Light and Laser products. It is Laser 2000 mission to offer customers the latest available technologies specializing in optical instruments, motion control, components, light sources, industrial lasers, scientific lasers and laser safety. We represent >30 of the most innovative suppliers in this field - established companies and young startups. Our customers are photonic researchers as well as system integrators and industrial OEM-partners. Contact: Freek van den Brand, Partner, fvdbrand@laser2000.nl.

Laser 2000 GmbH

#5065

Argelsrieder Feld 14, Wessling, Germany, 82234
49 8153 405 0; fax 49 8153 405 33
armin.luft@laser2000.de; www.laser2000.com

Laser 2000 is the largest independent European distributor of photonics products for industry and research. Laser 2000 specializes in sales and marketing of laser and light sources, components and instruments. We offer strong technical knowledge that is required in these fields. With local offices in all major business areas of the European market, we operate in a tight network of partners and potential customers. Contact: Armin Luft, Chief Executive Officer, armin.luft@laser2000.de.

Laser Components Canada

#1827

9 River Rd, Hudson, NH, 03051
603/821-7040; fax 603/821-7041
www.lasercomponents.com

New Product: New 1550nm Pulsed Laser Diodes (PLDs) with Low Divergence.

Pulsed Laser Diodes produced for high power 905-1550nm. Multi-junction lasers and low cost series compliment 905 and 1550 lasers having peak power exceeding 220W. Drive electronics and modules. Applications: range finding, speed measurement, laser radar, safety scanners, laser light curtains, use in testing/measurement systems. Sales/Support in United States by Laser Components IG, Inc. Contact: Gary Hayes, General Manager, hayes@laser-components.com; Matt Robinson, Sales Engineer, robinson@laser-components.com.

Laser Components DG, Inc.

#1827

9 River Rd, Hudson, NH, 03051
603/821-7040; fax 603/821-7041
www.lasercomponents.com

New Product: Hybrid APD Detectors with Integrated Amplifier, Hermetically Sealed Housing and Low-Noise.

Avalanche Photodiodes USA manufactured with high quality/low cost. Silicon and InGaAs APDs optimization at 650, 905, 1550, or 1060nm. SMD or ceramic submount package. Hybrids and drive electronics. Applications: range finding, speed measurement, laser radar, security scanners and fluorescence measurements in industrial, military, medical markets. Sales/Support in North America by Laser Components IG, Inc. Contact: Gary Hayes, hayes@laser-components.com; Matt Robinson, robinson@laser-components.com.

Laser Components GmbH

#1827

Werner von Siemens Str 15, Olching, Germany, 82140
49 8142 28640; fax 49 8142 286411
info@laser-components.com; www.lasercomponents.com

New Product: Gaussian Mirrors for Unstable Laser Resonator Designs, fully characterized.

COMPONENTS for optoelectronic and laser industries. In-house manufacturing includes lens substrates and hard dielectric coatings for laser optics, 193nm(UV)-5um(IR). Broad range spectroscopic laser diodes 3-24um. Available technologies: VCSEL, HCSEL, DFB, lead Salt, QCL, THz. Production of Fiber Optics, laser diode modules and spectroscopic tuneable diode laser systems. Contact: Gary Hayes, General Manager, hayes@laser-components.com; Valerie King, Sales/Marketing, king@laser-components.com.

InfraTec

Pyroelectric Detectors
single & multi-color

- Lithium tantalate
- Spectral range 2 ... 25 μ m

SPIE
Photonics West

See us at
PHOTONICS WEST
booth 6330



Standard and customized
detectors for use in

- high quality gas analyzers
- flame detectors
- radiometers
- spectrometers



InfraTec GmbH
Dresden - GERMANY

InfraTec Infrared LLC
Grapevine, TX - USA

Call us at 877-zyroco (877-797-6262)

E-mail: sales@infra-tec.infrared.com
Internet: www.infra-tec.infrared.com

Photonics West Exhibitor Directory

LASER COMPONENTS IG, Inc.

#1827



9 River Rd, Hudson, NH, 03051
603/821-7040; fax 603/821-7041
info@laser-components.com; www.lasercomponents.com

New Product: Pulsed Laser Diode Modules 905 and 1550nm-easy adjustment of pulse length and power during operation.

High power laser optics from 193nm-10.6µm, Flexpoint laser modules, polarizing filters, fiberoptic assemblies, color sensors. Avalanche Photodiodes and Pulsed Laser Diodes in stock, drive electronics, hybrids, complete modules. IR lead salt diode lasers (3-25µm) and SPECDILAS spectroscopic diode lasers including VCSEL, HCSEL, DFB, QCL, THz and complete spectroscopic instruments. Contact: Gary Hayes, General Manager, hayes@laser-components.com; Valerie King, Sales/Marketing, king@laser-components.com.

Laser Diode, Inc.

#241

2 Olsen Ave, Edison, NJ, 08820-2419
732/549-9001; fax 732/906-1559
pscarillo@tycoelectronics.com; www.laserdiode.com

LDI offers a comprehensive line of high power laser diodes. Products include: short pulse lasers 850 to 1550nm, high power CW lasers at 635 and 808nm for medical applications. Our products also include commercial and ruggedized transmitters and receiver modules, Pinfets for fiber-optic data transmission and OTDR lasers for instrumentation applications. www.laserdiode.com. Contact: Peggy Scarillo, Inside Sales Manager, pscarillo@tycoelectronics.com; George Minakas, High Power Product Manager, gminakas@tycoelectronics.com.

Laser Drive, Inc.

#219

5318 Ranalli Dr, Gibsonia, PA, 15044-9625
724/443-7688; fax 724/444-6430
sales@laserdrive.com; www.laserdrive.com

Laser Drive designs and manufactures OEM power supplies for argon, HeNe and diode lasers; Capacitor charging power supplies; deuterium, xenon arc lamp and flash lamp power supplies. Custom design and turnkey capabilities. Laser Drive's quality management system is ISO9001:2000 certified. www.laserdrive.com. Contact: Customer Sales and Service.



EXHIBITOR RECEPTION SPONSOR

Laser Focus World

#1107



98 Spit Brook Rd, Nashua, NH, 03062-5737
603/891-0123; fax 603/891-0574
www.laserfocusworld.com

Laser Focus World is a global resource for engineers, researchers, scientists and technical professionals providing comprehensive coverage of optoelectronics and photonics, technologies, applications and markets. *LFW* reports on and analyzes the latest developments and significant trends in both technology and business in the worldwide optoelectronics and photonics industry.

Laser Focus World Japan

#S8

Aihara Bldg, 2-11-11 Hirakawa-cho, Chiyoda-ku Tokyo, Japan, 102-0093
81 3 3556 1575; fax 81 3 3556 1576
ex-press@ex-press.jp; www.lfw-japan.jp

Laser Focus World Japan is a monthly magazine published in Japanese with 12,000 circulation. We translate and deliver editorial contents in *Laser Focus World* to the essential readers in Japan, in addition to the original articles tailored for them. Contact: Manami Konishi, Publisher, manami.konishi@ex-press.jp.

Laser Institute of America

#5053



13501 Ingenuity Dr Ste 128, Orlando, FL, 32828
407/380-1553; fax 407/380-5588
lia@laserinstitute.org; www.laserinstitute.org

Laser Institute of America is the international society dedicated to fostering lasers, laser applications and laser safety worldwide. For three decades, LIA has served the laser community through conferences, symposia, publications and courses. The LIA is the secretariat and publisher of the ANSI Z136 series of laser safety standards. Contact: Gus Anibarro, Education Manager, gus@laserinstitute.org; David Evans, Marketing and Sales, devans@laserinstitute.org.

Laser Materials Corp.

#3005

12706 NE 95 St #102, Vancouver, WA, 98682-2410
360/254-4180; fax 360/254-4182
sales@lasermaterials.com; www.lasermaterials.com

Manufacturer of Nd:YAG laser rods and slabs. Utilizing the Czochralski process, we grow large diameter Nd:YAG crystals at our plant in Vancouver, Washington, USA. Our high yield growth process allows us to provide high quality laser rods at reasonable prices. Contact: Paul Collins, President, paul@lasermaterials.com; David Collins, Vice President, dcollins@lasermaterials.com.

Laser Optics Berlin

#1801

Messedamm 22, Berlin, Germany, 10405
49 30 3038 2056; fax 49 30 303.8 2291
laser-optics@messe-berlin.de; www.laser-optics-berlin.de

New Product: Laser Optics Berlin, the International Trade Fair and Convention for Optical and Laser Technologies.

Laser Optics Berlin is organized by Messe Berlin in cooperation with the Technology Foundation Berlin (TSB) and their partners. The organizers are working to boost the significance of Laser Optics Berlin as a meeting place for optical technology manufacturers, users and scientists. The topnotch convention program offers attendees an attractive forum for discussion and dialog. Reserve your spot at the next Laser Optics Berlin 2010 being held March 22 to 24, 2010. Contact: Kerstin Kube-Erkens, Senior Project Manager, kubeerkens@messe-berlin.de; Inga Mihica, Project Manager, kallfelz@messe-berlin.de.

Laser Optics, a PPGI company

#1410



181 Legrand Ave, Northvale, NJ, 07647
201/767-1910; fax 201/767-9644
sales@laseropticsinc.com; www.laseropticsinc.com

Manufacturer of OEM and custom optical components and coating services for ultraviolet, visible and infrared. Specialists in coatings for high-power lasers. Products include cavity and beam steering components, waveplates and polarizing optics. Extensive optics catalog for visible and infrared applications. Serving Semiconductor inspection, Medical, National labs and Defense industries. Contact: Iris Friedman, Sales Manager, ifriedman@laseropticsinc.com.

Laser Point

#1627

Via Burona 51, Vimodrone, Italy, 20090
39 227 400 236; fax 39 225 029161
ferritti@laserpoint.it; www.laserpoint.eu

Laser Point manufactures power and energy meters for scientific, industrial and OEM applications. Contact: Philip Crowley, Phil@markettechinc.net.

Laser Quantum Ltd.

#1235

Emery Court Vale Rd, Heaton Mersey, Stockport Cheshire, United Kingdom, SK4 4JZ

44 161 975 5300; fax 44 161 975 5309

sales@laserquantum.com; www.laserquantum.com

Laser Quantum is a manufacturer of premium grade laser systems and a recognized contributor to the photonics industry. Specializing in CW green, blue and infrared solid state lasers - including single frequency and stable high power visible lasers. Laser Quantum's products are known globally for reliability, compactness, rugged design, excellent performance and long lifetime. All products have been well received across industries such as aerospace, medicine, biomedicine and research.

Laser Research Optics

#644

120 Corliss St, Providence, RI, 02904

888/239-5545; fax 401/331-4004

sales@laserresearch.net; www.laserresearch.net

Laser Research Optics supplies CO₂ laser optics for 25 to 200 watt lasers, factory direct and optimized for 10.6 micron. Featured are ZnSe positive focusing lenses in plano-convex, plano-concave and meniscus configurations in 1/2" to 2" diameter, focal length 1" to 20". CO₂ laser turning mirrors offered are made from molybdenum for harsh environments; other mirrors include copper, dual band, silicon and phase retardation. These OEM quality replacement optics ship from stock within 12 hours. Contact: Scott Rouillard, Sales Representative, scott@melleroptics.com.

Laser Safety Industries

#6083



6311 Cambridge St, Minneapolis, MN, 55416

888/752-7370; fax 952/405-6949

rkeithp@yahoo.com;

New Product: Laser safety eyewear with highest optical clarity, fitover Rx capability and comfortable.

Laser Safety Industries, we will deliver more for less. We are a multidisciplinary laser safety products company bringing you high quality professional-grade products for all laser applications - from health care and education to industrial and military. Contact: Keith Poppe, Sales, kpoppe@lasersafetyindustries.com; Jeremy Erickson, Sales, jerickson@lasersafetyindustries.com.

Laser Scanning Solutions

#6339



461 E Evelyn Ave, Sunnyvale, CA, 94086

408/245-7161; fax 408/245-7160

sales@laserscanningsolutions.com

New Product: warpScan CO₂/YAG Galvo Scan head with integrated servo amplifier, control electronics and software.

Laser Scanning Solutions addresses the laser and optical scanning markets including scribing, drilling and cutting by offering high performance galvanometers, patented linear focus actuators, advanced control electronics, plug-and-play scan heads and fully integrated and tested OEM solutions. LSSI also offers optical instrumentation solutions including digital autocollimators and optical beam position and stability sensors. Contact: Jag Gadhok, President, jgadhok@laserscanningsolutions.com.

LASER World of PHOTONICS

#6626

Munich International Trade Fairs, 75 Broad St 21st Fl, New York, NY, 10004

212/974-1880; fax 212/262-6519

info@munich-tradefairs.com; www.munich-tradefairs.com

LASER World of PHOTONICS—International Trade Fair for optical technologies - components, systems and applications June 15-18, 2009 in Munich/Germany. LASER World of PHOTONICS China—China's platform for the photonics community March 17-19, 2009 in Shanghai/China, www.world-of-photonics.net. Contact: Sabine Kallup, Project Manager, skallup@munich-tradefairs.com.

Laser Zentrum Hannover e.V.

#1801

Hollerithallee 8, Hannover, Germany, 30419

49 511 2788 0; fax 49 511 2788 100

info@lzh.de; www.lzh.de

The Laser Zentrum Hannover e.V. (LZH) is active in research, development and consulting in all areas of laser technology. The LZH deals with customer-specific problem solving in technical, scientific and economic areas in all fields of laser technology, including laser development, laser optics, micro- and nano-machining and laser safety. The laser development department provides innovative solutions for solid-state lasers, single-frequency lasers, ultrafast lasers and spaceborne laser systems. Contact: Michael Botts, Public Relations, M.Botts@lzh.de.

Laser-compact Co., Ltd.

#6134



3 Vvedensky St, Moscow, Russia, 117342

7 495 333 0000; fax 7 495 720 5451

ik@lcompact.msk.ru; www.laser-export.com

New Product: DPSS green SLM laser LCM-S-111-50 with 50 mW output for OEM.

Represents a group of companies Laser-compact specializing in the field of DPSS lasers (Laser-compact™). Designing and manufacturing of lasers for OEM projects based on 17-year custom design experience. Over 32,000 of DPSS lasers produced for world-leading industrial companies for use in: mass spectrometry, laser microdissection, laser microscopy, interferometry, holography, industrial and medical alignment/positioning. Contact: Natalia Gavrilenko, Marketing Director, Ekaterina Fedyna, Marketing specialist.

Laser-export Co. Ltd.

#6134



3 Vvedensky St, Moscow, Russia, 117342

7 495 720 54 50; fax 7 495 720 54 51

sales@laser-export.com; www.laser-export.com

New Product: DPSS Q-switched lasers for OEM: models DTL-329QT (1053 nm, 300 μJ) and DTL-319QT (527 nm, 100 μJ).

Laser-export Co. Ltd. is manufacturer of DPSS lasers (Laser-compact™) The company offers variety of CW and pulsed laser systems and laser modules radiating in ultraviolet (at 355 nm, 266 nm), green (at 532 nm, 527 nm), infrared (at 1064 nm, 1053 nm, 1047 nm) range of spectrum designed for OEM in different application fields: mass spectrometry (MALDI TOF), laser microdissection, laser microscopy, interferometry, holography, industrial and medical alignment/positioning, etc. Contact: Natalia Gavrilenko, Head of Sales Department, Ekaterina Fedyna, Sales Manager.

Photonics West Exhibitor Directory

Laserline Inc.

#1934



1800 Wyatt Dr Ste 9, Santa Clara, CA, 95054
408/834-4660; fax 408/834-4671
info@laserline-inc.com; www.laserline-inc.com

New Product: High Brightness Diode Laser Pump Module LDM 500 W, 200 µm, NA 0.22, single wavelength.

Laserline develops and produces diode lasers with an output power of 100 W to 10,000 W, which can be easily adapted to different industrial and scientific applications. Laserline's high brightness fiber coupled laser diode modules are excellent pump sources for fiber lasers and other DPSS, with special features for pumping applications such as wavelength stabilization and pump protection. Our high power systems are used in a wide range of industrial applications such as brazing and cladding. Contact: Silke Pflueger, Director Marketing and Sales, silke.pflueger@laserline-inc.com; Klaus Kleine, Vice President United States Operations, klaus.kleine@laserline-inc.com.

Lasertel

#418



7775 N Casa Grande Hwy, Tucson, AZ, 85743
520/744-5700; fax 520/744-5766
info@lasertel.com; www.lasertel.com

Lasertel is a vertically-integrated semiconductor laser manufacturer. In-house epitaxy, wafer processing and packaging enables consistent delivery of a wide range of standard and customer-specific product solutions. Lasertel's chips, bars, array packages, and fiber-coupled devices are available with peak wavelengths from 770nm to 1000nm, and peak powers from 200mW to several kW. Contact: Robert Walker, Director of Sales and Marketing, rwalker@lasertel.com; Craig Henry, National Accounts Manager, chenry@lasertel.com.

LASOS Lasertechnik GmbH

#1627



Carl Zeiss Promenade 10, Jena, Germany, 07745
49 3641 2944 0; fax 49 3641 2944 79
lasosinfo@lasos.com; www.lasos.com

LASOS Lasertechnik GmbH develops, manufactures and markets Argon Ion lasers, Diode lasers, DPSS lasers, HeNe lasers. The industrial manufactured lasers operate in the visible wavelength range from 405 nm to 685 nm and provide output powers 0.5 mW up to 200 mW and provide excellent beam quality and long life time for OEM applications such as Biomedical Imaging, DNA Sequencing, Flow Cytometry, Holography, Optics Testing, Reprographics and Test and Measurement. Contact: Philip Crowley, Sales, Phil@markettechinc.net.

Lattice Electro Optics, Inc.

#231



1324 E Valencia Dr, Fullerton, CA, 92831
714/449-0532; fax 714/449-0531
latticeoptics@gmail.com; www.latticeoptics.com

New Product: LBO and coating, High Damage PBS, High Energy Broadband Ti:Sapphire Optics, Plastic Sheet Polarizer.

High Power PBS. Broadband High Energy Ti:Sapphire Mirrors. EXCIMER (193 and 248nm), YAG, CO₂ and FEMTOSECOND optics. OPO and Laser Rod coatings. Sandia Nat. Labs' Level 1 Supplier. 24 Hours turn around on coating. High Power Beam Expanders are available. High Damage Threshold Optics and Coatings. Mirrors, Windows, Beamsplitters, polarizing optics, Waveplates. Cylindrical/aspheric lenses, ETALONS, Filters, Prisms. Contact: Scott Kim, Chief Engineer, latticeoptics@gmail.com; Olivier Rossi, Sales and Marketing, orossi.latticeoptics@gmail.com.

Lattice Materials LLC

#6343

516 E Tamarack St, Bozeman, MT, 59715
406/586-2122; fax 406/587-9055
marketing@latticematerials.com; www.latticematerials.com

Lattice Materials LLC machines silicon and germanium for the infrared optics, thin film coating, and laser optics industries. We have nearly 20 years experience providing precision machined components, made to your prints and in a wide variety of silicon specifications. Contact: Bob Spetz, Sales Engineer, bobs@latticematerials.com; Mike Foster, Sales Engineer, mikef@latticematerials.com.

Lee Laser, Inc.

#638

7605 Presidents Dr, Orlando, FL, 32809
407/812-4611; fax 407/850-2422
sales@leelaser.com; www.leelaser.com

Manufacturers industrial-grade OEM solid-state lasers: Diode-pumped and lamp-pumped, YAG and Vanadate, TEM₀₀ and multimode. CW and Q-switched lasers for marking, trimming, scribing, welding, cutting, diamond processing, PV manufacturing, Ti:Sapphire pumping. 1064-nm up to 1000-W; 532-nm up to 300-W; Pulse-pumped at 1064-nm up to 100-W for micro-machining, stents and stencils; 355-nm UV up to 12-W. Specializes in OEM engineering to enhance form and function. Contact: Steve Lendway, Sales Engineer, slendway@leelaser.com.

LEG Thüringen GmbH - State Development Corporation of Thuringia

#1801

Mainzerhofstr 12, Erfurt, Germany, 99084
49 361 5603 445; fax 49 361 5603 328
www.invest-in-thueringen.org

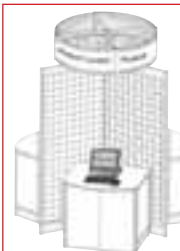
As a business development corporation for the Free State of Thüringen, LEG is responsible for marketing the region and attracting new investors. LEG works with investors to select the most appropriate sites from all the industrial and manufacturing areas in Thüringen, establishes contact with regional authorities, liaises with government agencies and provides individual advice on financial incentives. All services rendered are free of charge for the investor. Contact: Steffen Laufmüller, Investment Promotion North America, steffen.laufmoeller@leg-thueringen.de.

Leica Microsystems CMS GmbH

#1801

Ernst-Leitz-Str 17-37, Wetzlar, Germany, 35578
49 6441 29 2865; fax 49 6441 29 2267
loc-sales@leica-microsystems.com;
www.leica-microsystems.com/oem-optics

All you need - from Design to Delivery- The Leica Optic Center. As one of the world's leading and most established producers of precision optics and microscopy systems, innovations are part of our daily business - pioneering achievements that win prestigious industry and technology awards for us and enable our customers to make groundbreaking progress time and again. Make our expertise work for your success! LEICA MICROSYSTEMS - Living up to live. Contact: Raimund Bayer, Project Manager, Raimund.Bayer@leica-microsystems.com.



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LEISTER Technologies

#1045

SPIE Corporate Member

1253 Hamilton Pkwy, Itasca, IL, 60143
630/760-1000; fax 630/760-1001
info@leisterusa.com; www.leister.com/axetris

New Product: Microlens arrays for Fiber Array and Laser Diode Collimation (DWDM, OADM), and Beam Homogenization.

LEISTER Technologies' Axetris Division develops and manufactures microlens arrays and diffractive optics. Our standard and custom solutions include optics for Fiber Array Collimation and Coupling (DWDM, MUX, OADM, OXC), Laser Diode Collimation (SAC, FAC, and Silicon lenses), Shack-Hartmann Sensors, Optical Switching, and Beam Shaping and Homogenization applications. An ISO 9001:2000 certified process, combined with 50 years of manufacturing experience, makes Swiss-based LEISTER a reliable supplier. Contact: John Vrakas, Optical Eng, Axetris Sales, john.vrakas@leisterusa.com; Stefan Lesjak, Axetris Sales Eng, stefan.lesjak@leister.com.

LEONI Fiber Optics GmbH

#6027

Muehldamm 6, Neuhaus-Schierschmitz, Germany, 96524
49 36764 81 100; fax 49 36764 81 110
fiber-optics@leoni-fiber.com; www.leoni-fiber-optics.com

New Product: LEONI is offering from the preform to the fibers, up to fiber optic cables and complete optical systems.

The Business Unit Fiber Optics of the LEONI Group is one of the leading providers of optical fibers for the communication industry as well as for special applications in various industrial markets, in science and medicine. Contact: Andreas Weinert, Managing Director, andreas.weinert@leoni.com; Otto Bernauer, Managing Director, otto.bernauer@prinzoptics.de.

LEYBOLD OPTICS USA, Inc.

#5042

SPIE Corporate Member

539 James Jackson Ave, Cary, NC, 27513
919/657-7100; fax 919/657-7101
us.sales@leyboldoptics.com; www.leyboldoptics.com

LEYSOP Ltd.

#722

18 Repton Ct, Repton Close, Basildon Essex, United Kingdom, SS13 1LN
44 1268 522 111; fax 44 1268 522 111
sales@leysop.com; www.leysop.com

New Product: Leysop have expanded their existing range of crystal polarizing optics in both calcite and quartz.

Leysop have been established for over 15 years and are the only UK manufacturer of electro-optic components, including Pockels cells for Q-switching, modulation and pulse slicing, Faraday isolators and calcite polarizers of all forms. Of particular note are our special ultra fast Pockels cells for sub-ns pulses and systems for high speed pulse picking. We also manufacture many special components to customer specifications in both active and passive devices and welcome your enquiries. Contact: Steve Payne, Technical Director, sales@leysop.com; Phil Franks, Managing Director, phil.franks@leysop.com.

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Phone: 516-653-2000
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Email: info@tec5USA.com
Visit our Web site: www.tec5USA.com

Pittcon • Photonics

Liebmann Optical Co.

#1227

1 Industrial Pky, Easthampton, MA, 01027-1164
413/527-0079; fax 413 527 5132
sales@liebmann.com; www.liebmann.com

Liebmann Optical Co. (Easthampton, Massachusetts) has been manufacturing high quality spherical lens components since 1977. The full range of capabilities allows for the entire fabrication process to be completed in-house, from generating blanks to coating and cementing. We primarily fabricate and coat optical glass for applications with wavelength requirements that range from 200 to 2000 nm. We have successfully achieved 1GW/cm² coating damage thresholds. Contact: Brian Weinberg, Sales Manager, brian@liebmann.com.

Light Age, Inc.

#1115

500 Apgar Dr, Somerset, NJ, 08873
732/563-0600; fax 732/563-1571
sales@lightage.com; www.lightage.com

New Product: Light Age's MultiPass Raman Convertor provides high efficiency conversion to nearly any wavelength.

Light Age develops and manufactures standard/custom solid-state laser systems. With our advanced technologies and FDA capability we provide laser sources having nearly any possible output characteristics at wavelengths from mid IR to deep UV. Our laser systems are used in thousands of routine and cutting edge apps: medical diagnostics/therapeutics; lidars/standoff remote detection; advanced photolithography; combustion/plasma diagnostics; atomic/molecular spectroscopies; security/defense applications. Contact: Ado Umezawa, Vice President of Business Development, aumezawa@lightage.com; Donald Heller, Chief Executive Officer, dheller@lightage.com.

Photonics West Exhibitor Directory

Light Conversion Ltd.

#1445

PO Box 1485, Saulėtekio av 10, Vilnius, Lithuania, 10223
370 5 2491830; fax 370 5 2698723
lc@lightcon.com; www.lightcon.com

Light Conversion is the world-leader for continuously tunable fs/ps OPA systems offering worldwide proven TOPAS series products. New 'PHAROS' femtosecond DPSSL system features unique flexibility in industrial and medical applications (up to 10 W, 1mJ, 1MHz) and is also capable of pumping OPA's (450...2600 nm + harmonics, <30fs). Contact: Algirdas Judzapavicius, President, Lucian Hand, President, Altos Photonics.

Light Guide Optics Germany GmbH

#6063

Heerstrassen Benden 10, Rheinbach, Germany, 53359
49 2226 158516; fax 49 2226 158520
info@lgoptics.de; www.lgoptics.de

New Product: Fused end silica fibre bundles for high temperature or UV curing or flame watching systems.

We are manufacturer of fibre optics, fibre optic cable, bundles, fused end bundles for applications like laser delivery systems, spectroscopy, analytical and medical. We have more than 20 years experience. We have our own fibre production. Highest quality level and customer support are our targets. We are ISO certificated for industry and medical products. Contact: Peter Taenzer, Manager Sales and Marketing, taenzer@lgoptics.de; Wolfgang Mielke, Managing Director, mielke@lgoptics.de.

Lightel Technologies

#6417

2210 Lind Ave SW Ste 100, Renton, WA, 98057
425/277-8000; fax 425/277-5280
sales@lighteltech.com; www.lighteltech.com

New Product: Fused fiber power combiners and advanced technology Coupler Workstations.

Lightel Technologies, Inc. was founded in 1999 by a team of experienced professionals to bring advanced components, modules, and equipment to the fiber optic industry. Our headquarters is based in the Seattle area with Sales and Marketing, Engineering, and R&D operations. Lightel also has its own manufacturing facility in Shenzhen, China for cost reduction purposes. Contact: Kevin Shirk, kevin_shirk@lighteltech.com; Valerie Cook, valerie_cook@lighteltech.com.

LightPath Technologies, Inc.

#1034



2603 Challenger Tech Ct Ste 100, Orlando, FL, 32826
407/382-4003; fax 407/382-4007
sales@lightpath.com; www.lightpath.com

LightPath Technologies, Inc. is a recognized leader in aspheric optical solutions for medical, industrial, defense and communication applications. We offer a full line of aspheric optics and assemblies, including molded aspheric optics, GRADIUM® optics, fiber collimators, optical isolators and optical assemblies. LightPath's aspheric optics and assemblies cover the spectral range from UV to long wave infrared (LWIR). Complete custom engineering and design support is available. Contact: Rob Myers, Director of Sales, rmyers@lightpath.com; Ray Pini, Director of Marketing, rpini@lightpath.com.

LightSmyth Technologies, Inc.

#6906

1720 Willow Creek Cir #520, Eugene, OR, 97402
541/431-0026; fax 541/284-5607
info@lightsmyth.com; www.lightsmyth.com

New Product: World's best transmission gratings for telecom; high performance and cost-effective.

LightSmyth offers a wide range of high performance diffraction gratings based on advanced nanophotonic fabrication technology. Diffraction gratings by LightSmyth are distinguished by high diffraction efficiency, low PDL and ultra-low-scatter. Application include optical instruments (spectroscopy, remote sensing), optical telecommunication (ROADM, optical switch) and others. LightSmyth also fabricates custom nanostructured single crystal silicon substrates for photonics, biology and chemistry. Contact: Cristoph Greiner, Sr. Scientist, cgreiner@lightsmyth.com; Dmitri Lazikov, Sr. Scientist, dmitri@lightsmyth.com.

Lightspeed Technologies

#6901

PO Box 110161, Campbell, CA, 95011
408/764-0062; fax 408/378-3629
sales@light-speed-tech.com; www.light-speed-tech.com

New Product: HPLS-LED Ring Illuminators. High intensity and short pulsed illumination for cameras and microscopes.

Product Lines include Diode, QCL, and Fiber Laser Systems, High Intensity LED systems, Spectrometers, Wavefront Sensors, Optics and Laser Characterization, Optical Tweezers, Precision Alignment, and Piezo Stages. U.S. Distributor for: Elliot Scientific, Photon Control, Arden Photonics, Mechonics, Laser Lab Gottingen, Neoplas Control. Contact: Randall Wilcox, Director of Sales and Marketing, randall.wilcox@light-speed-tech.com.

LightTrans GmbH

#1801

Wildenbruchstr 15, Jena, Germany, 07745
49 3641 66 43 53; fax 49 3641 66 43 54
sales@lighttrans.com; www.lighttrans.com

New Product: The dispersion of polychromatic light modeled by a blackbody power spectrum, done by VirtualLab™ 4.

LightTrans is an international trendsetter in electromagnetic optical engineering. The optics software VirtualLab™ unifies modeling techniques ranging from geometrical optics to electromagnetic approaches on one single platform. Light path diagrams allow user friendly set up of optical systems and combine sources, components and detectors. Toolboxes offer practical and simple application in analysis of systems, design of e.g. diffractive optical elements and beam shapers, analysis of gratings. Contact: Chuck Koehler, LightTrans USA Liaison Office Director, chuck.koehler@lighttrans.com; Rainer Kuhn, Sales Director, rainer.kuhn@lighttrans.com.

LightVision Technologies, Corp.

#6194

5F-13 No 40-2 Sec 1 Ming Sheng N Rd, Kwei-Shan, Taoyuan, Taiwan, 333
886 3 3555931; fax 886 3 3555934
sales@lightvision.com.tw; www.lightvision.com.tw

We are a manufacture company of Green Laser Pointer, Module and System in Taiwan. Based on excellent quality and reasonable price. You can visit www.lightvision.com.tw. Contact: Grace Chiang, Sales Representative, grace@lightvision.com.tw; Sales, sales@lightvision.com.tw.

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FREE Exhibitor Product Demonstrations

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LIMO Lissotschenko Mikrooptik GmbH #140

Bookenburgweg 4-8, Dortmund, Germany, 44319
49 231 222 41 0; fax 49 231 222 41 140
sales@limo.de; www.limo.de

New Product: LIMOs L-mount: single-bar diode-laser for high-precision applications (pumping, material-processing).

At our headquarters in Dortmund, an international team of 220 employees manufactures and sells innovative micro optics and laser systems. Our wafer-based optical components and systems are suitable for cost-effective production of premium lenses and customized beam shaping solutions. All diode lasers, laser systems and laser workstations impress with highest brightness and robust industrial design. Customers benefit from our expertise, whether they need professional consulting or technical service. Contact: Klaus Reinecke, Director Sales, k.reinecke@limo.de.

Lincoln Laser Co. #421

234 E Mohave, Phoenix, AZ, 85004-2845
602/257-0407; fax 602/257-0728
sales@lincolnlaser.com; www.lincolnlaser.com

Custom Engineered and Manufactured Solutions for laser beam delivery systems and laser-based technologies. Extensive engineering expertise and manufacturing resources for component, sub-assembly or module level projects, prototype to production. Products include Polygon Mirrors, Motors, Control Electronics, Optics, Precision Spindles and Electro-Optic Modules. Any Industry. Any Application. Contact: Beverly A. McGrath, Corporate Account Manager, bmcgrath@lincolnlaser.com; Michael Adkins, VP Sales, madkins@lincolnlaser.com.

LINOS Photonics #1427



459 Fortune Blvd, Milford, MA, 01757
508/478-6200; fax 508/478-5980
info@linos.com; www.linos-photonics.com

LINOS offers an industry-leading selection of optical components, opto-mechanical and opto-electronic devices over 4,000 standard products plus thousands of custom devices. Products include lenses, mirrors, beam splitters, filters, prisms, polarizers, laser optics, beam expanders, CCD and machine vision lenses, positioning systems, fiber optic components, laser modulators, Pockels cells, Faraday isolators, x-ray imaging lenses and cw Optical Parametric Oscillator. Contact: Mark Hutcheson, Sales.

Lionix B.V. #6270

De Veldmaat 104, Enschede, The Netherlands, 7522 NM
31 53 4893827; fax 31 53 2011303
info@lionixbv.nl; www.lionixbv.nl

XiO Photonics designs and supplies photonic integrated circuits including passive and active optical components, fiber-optic components, beam combiners, splitters, line terminals, wavelength-selective switches for ROADMs and true-time delays for smart antennas. Technology base is the TriPleX™ waveguide technology licensed from LioniX, offering a versatile industrial integration platform for telecom, datacom, sensing and novel visible light applications. Contact: Willem Hoving, Chief Executive Officer, w.hoving@xiophotonics.com.

Litron Lasers of North America #6344

2449 Amica Dr, Bozeman, MT, 59715
406/522-7566; fax 406/522-7567
ken@litronlasers.com; www.litronlasers.com

New Product: Diode pumped Nd:YLF lasers. 20mJ at 527nm at 1kHz. PIV and other applications.

Pulsed and CW Nd:YAG lasers and accessories. Diode pumped and lamp pumped lasers. High average power and repetition frequencies are our specialty. Litron also offers photodiode laser energy meters. Contact: Ken Bell, President, ken@litronlasers.com.

Lockheed Martin Aculight #1434



22121 20th Ave SE, Bothell, WA, 98021
425/482-1100; fax 425/482-1101
info@aculight.com; www.aculight.com

Lockheed Martin Aculight is a leader in quality, innovative and cost-effective laser systems for customers in the national defense, aerospace and medical markets. We develop and manufacture lasers with outputs from UV to IR. Offering both off-the-shelf and customer-designed products. Our technology portfolio includes fiber lasers, DPSS lasers, mid-IR lasers, nonlinear optics and OPOs. The company provides value at every level of the product cycle, from research to flexible contract manufacturing. Contact: Rob Afzal, Vice President of Research and Development, robert.afzal@lmco.com.

Lockheed Martin Space Systems #6221

PO Box 179, Denver, CO, 80201
303/977-3000
www.lmco.com

Logitech Ltd. #1733

Erskine Ferry Rd, Old Kilpatrick, Glasgow, United Kingdom, G60 5EU
44 1389 875444; fax 44 1389 879042
info@logitech.uk.com; www.logitech.uk.com

LT Ultra Precision Optics #6195



51111 W Pontiac Trail, Wixom, MI, 48393
248/936-1717; fax 248/936-1712
info@ltultra.com

Lumera Laser GmbH #2038

203 Joseph St, O'Fallon, MO, 63366
636/272-7227; fax 636/272-3909
rpmc@rpmclasers.com; www.rpmclasers.com

New Product: 25 and 50W 1 MHz picosecond micromachining lasers.

Lumera Laser GmbH designs and manufactures a family of picosecond cold ablation lasers, the RAPID, Super RAPID, and Hyper RAPID, used for micromachining, with 2.5, 10, 25 and 50W in the IR. Designed for 24/7 industrial ultrafast applications/reliability, harmonics are available as well. LUMERA has systems deployed all over the world with >1M hours of run time on fielded lasers. Headquartered in Germany, LUMERA has a world-wide support network and a terrific reputation! www.lumera-laser.de. Contact: Chuck Ratermann, President.

Lumics GmbH #5101

Carl-Scheele-Str 16, Berlin, Germany, 12489
49 30 67806760; fax 49 30 678067626
sales4@lumics.com; www.lumics.com

Lumics focuses on pump laser chips and modules for optical amplifiers and commercial laser applications. Due to a unique chip design and manufacturing process Lumics pump lasers offer dramatically increased reliability and power conversion efficiency combined with high power levels. Contact: Mr. Frank Laas, Director Marketing and Sales, frank.laas@lumics.com.

Photonics West Exhibitor Directory

Lumina Power, Inc.

#6060

26 Ward Hill Ave, Bradford, MA, 01760
978/241-8260; fax 978/241-8262
sales@luminapower.com; www.luminapower.com

Lumina Power manufactures a complete line of laser and electro-optic power supplies including laser diode drivers from 50 to 3000 watts, capacitor chargers for flashlamp pumped solid state lasers, IPLs and other pulsed applications along with our XLB series short arc lamp drivers. New to the show this year is our DC input 100 and 150 watt laser diode drivers and the new "HC" high current diode drivers with output currents to 200amps.

Luminit LLC

#1335

20600 Gramercy Pl, Torrance, CA, 90501
310/320-1066; fax 310/320-8067
www.luminitco.com

Luminit is a privately held, high technology company specializing in custom and standard holographic diffusers based on multiple technology patents. Luminit's commercial experience covers applications including bio-medical, semiconductor metrology, aerospace, automotive, architectural lighting and display applications. Luminit's Light Shaping Diffusers® are available directly or through a network of domestic and international distributors. Contact: Suleyman Turgut, Director of Sales, sturgut@luminitco.com; Lisa Nakagawa, Inside Sales, lnakagawa@luminitco.com.

Luna Technologies

#6171

3157 State St, Blacksburg, VA, 24060
540/961-5190; fax 540/961-5191
solutions@lunatechnologies.com; www.lunatechnologies.com

New Product: PR4400: next-generation precision reflectometer measuring optical reflections as a function of distance.

Luna Technologies specializes in advanced solutions for fiber-optic test and measurement. Our award-winning product line includes the Optical Vector Analyzer and Optical Backscatter Reflectometer: flexible and easy to use tools for loss, dispersion, PMD, polarization, high-resolution OTDR, and distributed temperature and strain analysis for optical fiber components, modules and networks. These tools can help increase manufacturing yields and quicken the product's time-to-market. Contact: Brooke Jackson, Marketing Manager, solutions@lunatechnologies.com.

M Squared Lasers Ltd.

#1041

1 Technology Terrace, Todd Campus, West of Scotland
Science Park Maryhill Rd, Glasgow, United Kingdom, G20 OXA
44 141 945 0500; fax 44 141 945 0505
mail@m2lasers.com; www.m2lasers.com

New Product: SolsTiS-SRX: the smallest, quietest and only automated CW SLM Ti:S laser available, now even smaller!

From DUV to THz and CW to fs, M Squared Lasers provides Dependable Innovation™ - next-generation DPSS lasers and ICE-BLOC® photonic control modules for applications including: remote sensing; defense and security; bio-medical diagnostics and fundamental research. Bringing unique capabilities and reliability to science and industry, products include: Firefly™ widely tunable mid-IR/THz sources; SolsTiS™ - the smallest, quietest CW SLM Ti:S laser available; Sprite™ automated ultrafast oscillators. Contact: Leigh Bromley, Business Development, mail@m2lasers.com; Graeme Malcolm, CEO, mail@m2lasers.com.

m-u-t America Inc.

#6301

800 E Leigh St, Richmond, VA, 23219
804/512-3449; fax 804/241-9507
info@mut-america.com; www.mut-group.com

New Product: Tristan USB high resolution spectrometer and TRIWin 3.0, multi-spectrometer analysis software.

m.u.t America is the US subsidiary of m.u.t AG, a German company dedicated to all aspects of photonics. We offer a wide assortment of spectrometers, from stand-alone, battery powered that can store up to 10,000 spectra without use of a computer, to sophisticated desktop systems for sensitive laboratory analysis. Contact: Robert Gambill, Product Specialist, rgambill@mut-group.com; Niels Hagglund, Area Manager, nhagglund@mut-group.com.

m2k-laser GmbH

#1801

Tullastr 72, Freiburg, Germany, 79108
49 761 5158 7370; fax 49 761 5158 7376
info@m2k-laser.de; www.m2k-laser.de

New Product: M2k-laser offers fiber coupled MIR diode lasers and laser bars between 1.85 and 2.3µm.

M2k-laser is specialized on the development and production of high-brightness diode lasers based on GaAs and GaSb. The production line comprises tapered amplifiers up to 2W between 755nm and 1064nm. In the field of GaSb-based diode lasers the company focuses diode lasers and laser bars up to 15W between 1.85 and 2.3µm. The diodes are mounted on customer designed heat sinks for state of the art applications in sensing, spectroscopy, material processing and medical treatment. Contact: Marc Kelemen.

Mad City Labs, Inc.

#6111

SPIE EXHIBITOR

2524 Todd Drive, Madison, WI, 53713
608/298-0855; fax 608/298-9525
sales@madcitylabs.com; www.madcitylabs.com

New Product: Nano-3D200: Cost effective 3 axis motion with 200 microns/axis, 1 nm precision, closed loop control.

Mad City Labs designs and manufactures high precision, piezo based nanopositioning devices for research and industry. Our products incorporate innovative true flexure guided (decoupled) designs, proprietary PicoQ sensor technology and closed loop control. Our PicoQ sensors yield systems with low drift and superior stability. System attributes include picometer resolution, high speeds, real time position sensing. Suitable for microscopy, imaging, metrology and beam steering applications. Contact: Technical Sales, General Enquiries.

MANLIGHT

#2038

203 Joseph St, O'Fallon, MO, 63366
636/272-7227; fax 636/272-3909
manlight@rpmclasers.com; www.rpmclasers.com

New Product: 1mJ fiber laser with ~40ns pulsewidths and rep rates from 20kHz to 100kHz with CW operation too!

Manlight S.A.S., Lannion France, is one of the few companies in the world which is able to manufacture all components of a fiber laser in house. A very experienced and international team of experts in the field of lasers, optics, amplification and laser business is aiming to develop Manlight into one of the global "Key Players" in the most promising laser market of the future. We offer pulsed fiber lasers with 1mJ and pulsewidths ~40ns. CW fiber lasers up to 50W. Contact: Joe Redding, Product Manager, joe@rpmclasers.com; Chuck Ratermann, President, chuck@rpmclasers.com.

Market Tech, Inc.

SPIE Corporate Member

1500 Green Hills Rd Ste 109, Scotts Valley, CA, 95066
www.markettechinc.net

Market Tech is a leading distribution and sales company offering a wide variety of Gas, Solid State, Diode and Fiber Lasers covering UV, visible and IR spectrum. We also offer laser power meters, light and color measurement instruments, optics and fiber optics products for life science, medical, quality control and research applications. Contact: Philip Crowley, President, phil@markettechinc.net.

#1627

MegaWatt Lasers, Inc.

PO Box 24190, Hilton Head Island, SC, 29925-4190
843/342-7221

sales@mwlasers.com; www.megawattlasers.com

New Product: Diffuse reflector pump chambers for high energy applications with pulse energies up to 100 Joules.

MegaWatt Lasers manufactures application specific solid-state lasers and high-quality diffuse-reflector pump chambers for solid-state laser applications. Popular items include pump chambers, amplifiers, laser resonators, and ER-100 eyesafe Er:Glass transmitters. Packaged in a modified T0-3 housing, the ER100 miniature transmitter produces near diffraction limited, single longitudinal mode output with 50 kW of peak power in 2 ns pulses and is ideal for remote sensing applications. Contact: Scott Hamlin, Sales Engineer, mwl@megawattlasers.com.

#6172

Marlow Industries, Inc.

10451 Vista Park Rd, Dallas, TX, 75238-1698

214/340-4900; fax 214/341-5212

info@marlow.com; www.marlow.com

Marlow Industries is the world leader in quality thermoelectric cooling technology. For more than 30 years, Marlow Industries has developed and manufactured thermoelectric coolers (TECs) and subsystems for the aerospace, defense, medical, commercial, industrial, high-speed integrated circuits and telecommunications markets. Marlow is Telcordia and ISO 9001:2000 compliant and a Malcolm Baldrige National Quality Award winning company. Contact: David Finrock, Market Manager for Defense, Space and Photonics, dfinrock@marlow.com; Bill Kolander, Market Manager, Power Generation, bkolander@marlow.com.

#1244

Max Levy Autograph, Inc.

SPIE Corporate Member

2710 Commerce Way, Philadelphia, PA, 19154

215/842-3675; fax 215/842-3637

sales@maxlevy.com; www.maxlevy.com

Max Levy Autograph specializes in ultra-precision patterned components for the photonic, mil-aerospace, semiconductor, and metrology industries. Applications range from the X-Ray out to RF. Major manufacturing process capabilities include: photolithography, electroforming, photochemical etching, film products, micro-contouring/machining, and NIST traceable calibration services. Contact: Tom Cinque, Sales Manager, tom@maxlevy.com; Mike Vinson, Vice President of Sales and Marketing, mvinson@maxlevy.com.

#314

McGraw-Hill Professional

2 Penn Plaza 23rd Fl, New York, NY, 10121

212/904-5964; fax 212/904-6030

www.mhprofessional.com

If information is the gateway to success in today's global economy, McGraw-Hill is the gatekeeper. McGraw-Hill Professional enables technical and trade professionals to succeed in complex global industries by structuring the most current information into concise and authoritative resources. Enjoy a 20% discount on our vast collection of Optics, Photonics, and Nanotechnology titles, including *Modern Optical Engineering* by Warren J. Smith. Visit: www.mhprofessional.com. Contact: Tai Soda, Senior Editor, taisuke_soda@mcgraw-hill.com; Judith Reiss, Administrative Asst., Judith_Reiss@mcgraw-hill.com.

#6336

Meadowlark Optics, Inc.

5964 Iris Pky, PO Box 1000, Frederick, CO, 80530

303/833-4333; fax 303/833-4335

sales@meadowlark.com; www.meadowlark.com

#1312

Megaopto Co., Ltd.

Riken-Wako Incubation Plaza 301, 2-3-13 Minami, Wako

Saitama, Japan, 351-0104

81 48 469 3377; fax 81 48 469 3332

megasales@megaopto.co.jp; www.megaopto.co.jp

#6185

Meller Optics, Inc.

120 Corliss St, Providence, RI, 02904-2602

800/821-0180; fax 401/331-0519

sales@melleroptics.com; www.melleroptics.com

Meller Optics has been providing high quality optics to defense, medical, laser and industrial markets for over 50 years. Specializing in grinding and polishing of hard, durable materials. Meller has developed high-speed, low-cost finishing processes for Sapphire, Ruby, Laser Glasses, Fused Silica, Zinc Selenide, Germanium, Silicon, Fluorides and Ceramics. Configurations include windows, substrates, lenses, domes and prisms. Meller Optics is an ISO 9002 certified company. Contact: Craig D. Schweriner, Sales Manager, craig@melleroptics.com; Steve Lydon, Representative, sales@melleroptics.com.

#644

MEMS Optical Inc.

SPIE Corporate Member

205 Import Cir, Huntsville, AL, 35806

256/859-1886; fax 256/858-0581

info@memsoptical.com; www.memsoptical.com

MEMS Optical, Inc. is a leading supplier and manufacturer of high performance refractive and diffractive microoptics and MEMS devices. MEMS Optical provides solutions to diverse markets such as Defense and Security, Information and Communications, Industrial and Semiconductor Equipment, General Illumination and Healthcare and Life Sciences. MEMS Optical continues to develop and improve microoptics applications through the use of grayscale technology and other proprietary processes.

#1227

Menlo Systems GmbH

Am Klopferspitz 19, Martinsried, Germany, 82152

49 89 189 166 0; fax 49 89 189 166 111

sales@menlosystems.com; www.menlosystems.com

#1126

MeshTel - INTELITE

2562-F1 Silver State Pkwy, Minden, NV, 89423

775/267-5959; fax 775/267-5958

info@meshtel.com; www.meshtel.com

New Product: Diode/DPSS CW, Acousto-Optic Modulator (AOM) Q-switched, Low Noise, Single Longitudinal Mode lasers.

Manufacturer/supplier of Diode/DPSS CW, Acousto-Optic Modulator (AOM) Q-switched, Low Noise, Single longitudinal Mode, lasers with wavelength of 266, 355, 473, 532, 671, 1064, 1034nm DPSS, 375 to 1600nm Laser Modules/ Systems. Single and Multi Mode Fiber coupled / pigtailed lasers. Side emitting, transmission silica core optical fibers, custom fiber bundles. Low cost closed-loop galvanometers /actuators. Laser safety goggles. Laser projection hardware/software. Dynamic laser guided template. Contact: Ray Newton, Sales, info@meshtel.com.

#3016

Photonics West Exhibitor Directory

METALLIFE, Inc.

#6812

#3Na 307 Si-Wha Industrial Complex, Jeongwang-dong
Siheung-si, Gyeonggi-do, South Korea, 429-850
82 31 499 2817

nam_dongwoo@hotmail.com; www.metal-life.co.kr

Metallife is a leading manufacturer of precision electro-optic components for telecommunications, industrial applications. Products include hermetic ceramic packages (Butterfly, Mini-Dil), hermetic matched and compression glass sealed packages, submount, lid and more. Also we are able to make hermetic aluminum housing. Contact: Dongwoo Nam, Sales Manager, nam_dongwoo@hotmail.com.

Metavac LLC

#6090

 SPIE Corporate Member

4000 Point St, Holtsville, NY, 11742
631/447-7700; fax 631/447-7715
info.metavac@thermofisher.com;

Metrology Concepts LLC

#326

Bldg E, 3495 Winton Pl Ste 120, Rochester, NY, 14623
585/427-9155; fax 585/427-9026
info@metrologyconcepts.com; www.metrologyconcepts.com

Manufacturer of modular interferometer solutions for micro-optics, CNC optics, molded lenses, optical windows and precision flat components. Standard and high resolution systems available. Miniaturized units for SPDT lathes and other in situ applications. Standard apertures include 1, 10, 50, 100, 150, 300 millimeters. Contact: John Nemechek, Sales and Marketing Manager, jjn@fisbaoptik.com.

Meyer Burger Technology Corp.

#6164

Allmendstr 86, Thun, Switzerland, 3600
41 33 4390505; fax 41 33 4390510
mbinto@meyerburger.ch; www.meyerburger.ch

Meyer Burger Technology Ltd. is a leading and globally active technology group for innovative systems and processes for cutting and handling crystalline and other high-grade materials. Technology includes continuing research and development of advanced cutting technologies for the Solar, Semicon, and Optical Industries and also provides a worldwide customer and services network. Contact: Ariane Kuenzli, Sales Manager, A.Kuenzli@meyerburger.ch.

MICOS USA, LLC

#6009

 SPIE Corporate Member

15375 Barranca Pkwy Ste G-101, Irvine, CA, 92618
949/480-0538; fax 949/480-0538
mschneider@micosusa.com; www.micosusa.com

MICOS serves the high-precision positioning market including industry and research with an emphasis on laser and micro-wave technology, communications, semi-conductor technology and micro-manipulation. We offer a wide range of precision positioners and control electronics as well as complete system integration services. Additionally, MICOS is known as the premier supplier for vacuum, clean room and extreme temperature applications. Contact: Manfred Schneider, mschneider@micosusa.com.

Micro Care Corp.

#6188

595 John Downey Dr, New Brittan, CT, 06051
860/827-0626; fax 860/827-8105
techsupport@microcare.com; www.microcare.com

New Product: Low VOC solvents that meet CARB regulations.

MicroCare produces nonflammable optical cleaners that replace alcohol, acetone and other solvents. They are engineered for cleaning lasers, lenses, filters, diffraction gratings, prisms and any other optical device. Packaged in spill-proof, pocket-sized pump bottles, they remove oils, fingerprints, dust and lint. Safe for your components, your people and the environment, they enable you to clean faster, better, at lower cost with less waste. ISO 9001:2000 registered. Contact: Tech Support, Tech Support, TechSupport@MicroCare.com; Tom Tattersall, Vice President, TomT@MicroCare.com.

Micro Laser Systems, Inc.

#619

 SPIE Corporate Member

12841 Western Ave Ste H, Garden Grove, CA, 92841
714/898-6001; fax 714/897-0979
sales@microlaser.com; www.microlaser.com

New Product: New 1550nm 20mW laser, 1064nm DFB laser and 488nm diode laser.

We are a manufacturer of Diffraction Limited Free Space and Fiber Coupled Diode Laser Systems ranging from 375nm to 1600nm. Most lasers have a single longitudinal mode with high stability or are DFB type with even narrower linewidths. Accessories include beam expanders, filters, focusing optics, isolators, fiber collimators, SM and PM fiber splitters and wavelength combiners. Semi-custom and custom lasers and fiber systems are routinely manufactured for OEM users. Contact: Norma Adachi, Marketing Manager, norma@microlaser.com.

Micro Photon Devices

#6067

Via Stradivari 4, Bolzano, Italy, 39100
39 0471 051212; fax 39 0471 501524
sales@optoecomponents.com; www.microphotondevices.com

MPD's single-photon detection modules have ultra-fast timing resolution, high photon detection efficiency, low power consumption, small size and are extremely robust and reliable. The company benefits of the efforts and the expertise of a research group at Politecnico di Milano, led by Professor Sergio Cova. Contact: Nick Bertone, Nick.Bertone@optoecomponents.com.

Microcertec

#6142

PA Les Portes de la Forêt, 47 Allee du Clos des Charmes,
Collegiens Cedex, France, 77615
33 1 60 06 66 73; fax 33 1 60 05 32 51
gaelle.muzellec@microcertec.com; www.microcertec.com

New Product: 3D interconnection circuit carriers, metalized heat sinks, laser cavities.

Microcertec is an independent privately-owned company specialized in the manufacturing of customized components in advanced ceramics. Using modern CNC grinding, ultrasonic and laser micro-machining techniques, we produce parts with intricate shapes, large or small dimensions and very close tolerances. These parts can also be thin-film metalized and laser etched even in 3D format. We have strong experience with the photonics industry. Contact: Alain Charbonnier, alain.charbonnier@microcertec.com; Francois Irlinger, francois.irlinger@microcertec.com.

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Colorado is home to over 250 photonics companies, seven universities with photonics programs/research, four federally funded labs with photonics facilities, three Nobel Physics prize winners for photonics research, and the only Advanced Photonics Technology Center in the United States.

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Booth 1212

Photonics West Exhibitor Directory

Micron Optics, Inc.

#6216

1852 Century Pl NE, Atlanta, GA, 30345
404/325-0005; fax 404/325-4082
khsu@micronoptics.com; www.micronoptics.com

Micron Optics, Inc. is an established leader of innovative optical components and laser-based equipment that allow the Sensing, Imaging and Telecommunications industries to make the critical measurements they need. The comprehensive product portfolio of tunable optical filters, swept lasers, optical sensors and sensing interrogators delivers the highest degree of measurement precision, resolution, and accuracy. Contact: Kevin Hsu, V.P. Research and Technologies, khsu@micronoptics.com; Alexis Mendez, alexis.mendez@mchengineering.com.

Midwest Optical Systems

#132

322 Woodwork Ln, Palantine, IL, 60067
847/359-3550; fax 847/359-3567
info@machinevisionfilters.com; www.midopt.com

Midwest Optical Systems offers more than 1000 types of mounted optical filters designed for industrial and scientific CCD cameras and lenses. We also manufacture custom and stock optical components and assemblies including single and multiple element lenses, windows, mirrors, prisms, beamsplitters, and much more, for a variety of applications. We carry a large stock of raw materials and finished components, which can be quickly and economically modified to meet custom requirements.

Mightex Systems

#6374



2343 Brimley Rd Ste 868, Toronto, ON, Canada, M1S 3L6
416/840-4991; fax 416/840-6541
sales@mightex.com; www.mightex.com

New Product: Industrial CCD and CMOS cameras, line cameras, optical spectrometers, LED controllers.

Mightex designs, develops and markets industrial CCD and CMOS cameras, line cameras, LED controllers, LED light sources, optical spectrometers, and bio-photonics products. Products are competitively priced, and they can be ordered directly online at www.mightex.com. We make worldwide shipments from California, USA. Contact: Dr. Miles Li, Managing Director, mli@mightex.com.

Mildex, Inc.

#1433



1388 Crittenden Rd, Rochester, NY, 14623-2308
585/473-6540; fax 585/475-1971
info@mildex.com; www.mildex.com

New Product: OptiSpheric/OptiCentric Optical Test Station measures EFL, BFL, Radius, MTF, lens centering errors.

Mildex, Inc. is US distributor of optical manufacturing and testing systems, serving the US optical industry since 1975. Products offered include autocollimators, collimators, diopter telescopes, electronic autocollimators, lens benches, spherometers, lens centering machines, polishing machines and precision rotary surface grinders. Contact: Harvey Miller, President, hmiller@mildex.com.

Milestone Technology

#6099

1292 Kifer Rd Ste 810, Sunnyvale, CA, 94086
408/530-8378; fax 408/245-9040
analyzefailure@aol.com; www.milestonelab.com

Milestone Technology is a failure analysis lab serving the optical, semiconductor, MEMS, medical device, solar, electronics, quartz, ceramics, coating, metal and disk drive industries for the past 16 years. We specialize in Field Emission Scanning Electron Microscopy, EDX Analysis, Metallography, Surface Contamination Analysis, Precision Cross-Sectioning, Particle Analysis, Backscattered Imaging, Quantitative Analysis. Contact us at (408) 530-8378, or www.milestonelab.com. Contact: Neeru, Analyst, neeru@milestonefab.com.



STAIRWAY STRIPS SPONSOR

Mindrum Precision, Inc.

#1317



10000 Fourth St, Rancho Cucamonga, CA, 91730
909/989-1728; fax 909/987-3709
sales@mindrum.com; www.mindrum.com

New Product: Laser Range Finders. Scanning Lasers. Eye Safe Laser Modules.

Custom manufacturer of glass, quartz, ceramic and exotic material components. 5 axis capabilities in drilling, shaping and polishing. Prototype work welcome. Large and small sizes. Our new facility in Houston, TX builds Laser Range Finders and Scanners. Eye-Safe Laser Ranging Modules available for product developers and universities. Currently supplying to military and commercial markets. Contact: Todd VanSon, Sales Manager, sales@mindrum.com; Linda Kondris, Sales, sales@mindrum.com.

Minus K Technology, Inc.

#6115



420 S Hindry Ave Unit C, Inglewood, CA, 90301
310/348-9656; fax 310/348-9638
sales@minusk.com; www.minusk.com

Manufacturer of vibration isolation systems for SPMs, SEMs, metrology, micro-hardness testers, lasers and optics. They are low-cost, passive, vacuum adaptable and require no air or electricity. Products include table-top platforms, workstations, floor platforms and custom systems. Guaranteed 1/2 Hz natural frequencies make them effective against low-frequency building vibrations. Isolation is typically 10 to 100 times better than air tables and even better than the higher-priced active systems.

Mitsubishi Cable Industries, Ltd.

#6320

103 Bay Hill Dr, Blue Bell, PA, 19422
610/270-3002; fax 610/270-0588
optsales@mitsubishi-cable.co.jp; www.mitsubishi-cable.co.jp

Mitsubishi Cable Industries is Japan's leading producer of silica core fiber and cables for use in laser delivery in industrial and medical applications. We also produce the world's leading non-solarizing fiber for DUV (Deep-Ultraviolet) light delivery applications in spectroscopy, process end-point detection and excimer laser delivery. Our engineers will be in our booth to discuss and assist end users in finding solutions to demanding fiber optic applications requirements. Contact: James Stevens, US Fiber Optics Sales and Marketing Manager.



Free Popcorn

Popcorn carts will be located in the back of Exhibition Hall 3 and South Hall 1 and will be open from 11:00 am to 4:00 pm, Tuesday through Thursday.

Mitsui Chemicals America, Inc.

#6918

800 Westchester Ave Ste N607, Rye Brook, NY, 10573
914/253-0777; fax 914/253-0790
info@mitsuichem.com; www.mitsuichemicals.com

Mitsui Chemicals America, Inc. offers a wide range of products for the automotive, packaging, pharmaceutical and electronic industries. These products include a line of optical polymers called APEL™, having the lowest birefringence among the optical polymers with outstanding heat resistance. Its low dispersion, near constant refractive index and high melt flow results in the superior design flexibility at the lowest manufacturing cost. Contact: Takeshi Onuma, Director, t.onuma@mitsuichem.com.

MLD Technologies, LLC

#6218

SPIE Corporation
Member

2672 Bayshore Pkwy Ste 701, Mountain View, CA, 94043
650/938-3780; fax 650/938-3113
info@mldtech.com; www.mldtech.com

MLOptic Corp.

#6010

3120 W Carefree Hwy Ste 1-149, Phoenix, AZ, 85086
623/537-4548; fax 623/537-4549
mike.young@moonlightamerica.com; www.mloptic.com

Manufacturing custom optical elements, filters, prisms, lens, mirrors including optical, mechanical design and full inhouse assembly and testing. 100% of our optics are coated in house. Contact: Mike Young, USA Sales, mike.young@moonlightamerica.com; Alan Fan, Production Manager, alan@mloptic.com.



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Modulight, Inc.

#6412

Hermiankatu 22, Tampere, Finland, 33720
358 20 7739000; fax 358 20 7739009
sales@modulight.com; www.modulight.com

New Product: A new generation of high power collimated laser modules among the chili and rangelaser families.

Modulight, Inc. provides value-adding solutions to optical applications for industrial, communication, medical, space and defense industries. Our products include various types of lasers from visible to infrared wavelengths with output power levels from milliwatts to over hundreds of watts. Modulight provides also laser solutions from design and manufacturing of laser diodes to OEM-based optical sub-systems and turn-key laser systems. Contact: Rami Valli, Sales Manager.

Moeller-Wedel Optical GmbH

#1847

Rosengarten 10, Wedel, Germany, 22880
fax 49 4103 937 7660
info@moeller-wedel-optical.com;
www.moeller-wedel-optical.com

Molded Plastic Optics, LLC

#6415

SPIE Corporation
Member

7 Perimeter Rd, Manchester, NH, 03104
603/669-7800; fax 603/669-7814
sales@mpoptics.com; www.mpoptics.com

New Product: State of the art injection compression molding machines produce precision molded plastic optics.

Molded Plastic Optics, (MPO) designs, produces and verifies the highest precision molded plastic optical components including asphere lenses and aspheric doublets. MPO offers optical design, rapid prototyping, repeatable high volume molding, sub-assembly, and comprehensive testing and verification of all parts. MPO's 10,000 sq ft facility includes state of the art injection compression molding machines, single point diamond turning machines, and a comprehensive metrology lab. www.mpoptics.com. Contact: Paul Murphy, Director of Sales and Marketing, PMurphy@mpoptics.com; Dave Schmidt, Director of Advanced Technology, Dschmidt@mpoptics.com.



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Monocrystal, Inc.

#6231

4/1 Kulakov Prospect, Starvopol, Russia, 355035
7 8652 95 67 15; fax 7 8652 95 65 28
marketing@monocrystal.com; www.monocrystal.com

New Product: Sapphire substrates of up to 8 inch in diameter for LEDs and RFIC's are available now.

Monocrystal is a leading manufacturer of synthetic sapphire substrates for hi-tech application. High purity, low dislocation density and precise processing make Monocrystal's products an ideal choice for LEDs, semiconductors and optics as well as fine mechanics and laser technologies. Monocrystal custom-designed Silicon-on sapphire wafers for pressure transducers and ICs meet the most sophisticated requirements. Contact: Oleg Kachalov, Vice President Sales and Marketing, kachalov@monocrystal.com; Natalia Radzikhovskaya, Chief of Sales Department, radzikhovskaya@monocrystal.com.

Moore NanoTechnology Systems LLC

#1344

426A Winchester St, Keene, NH, 03431-0605
603/352-3030; fax 603/352-3363
sales@nanotechsys.com; www.nanotechsys.com

Nanotech® Ultra-Precision Machining Systems are available in various models with 2 to 5 axes of CNC motion control for single point diamond turning or deterministic microgrinding. All Nanotech machines utilize a programming resolution of 1.0 nanometer, and a system feedback resolution of only 0.034 nanometer. Our 10,000rpm heavy duty work holding spindle allows for high speed machining of IR crystals but is not limited by the same weight load restrictions as other high speed spindles. Contact: Bob Cassin, Sales Manager, cassin@nanotechsys.com.

Morgan Technical Ceramics

#6066

414 24th Ave, San Mateo, CA, 94403
650/208-0391
www.morgantechnicalceramics.com

New Product: MTC introduces an ultra pure 99.8% alumina, CAC998S, ideal for excimer laser components.

Morgan Technical Ceramics (MTC) manufactures products from a range of ceramics, glass, braze alloys, piezoelectric and dielectric materials. MTC's range of photonic solutions includes engineered waveguides, photomultiplier tubes, feedthrus, ceramic reflectors, braze alloys, high-voltage capacitors and piezoelectric bimorphs. www.morgantechnicalceramics.com. Contact: Keith Ferguson, Business Development Manager, keith.ferguson@morganplc.com; John Cloutier, Business Development Manager, john.cloutier@morganplc.com.

Photonics West Exhibitor Directory

Moulded Optics GmbH

#1801

Steinstr 13-15, Schoeffengrund, Germany, 35641
49 6445 6000 0; fax 49 6445 6000 40
info@mouldedoptics.com; www.mouldedoptics.com

Moulded Optics will be displaying many types of precision molded glass components from 2mm to 100mm sizes including singlet, aspheric, bubble, cylindrical, fly's eye array, free form, fresnel, half-ball, light pipe, plano, prismatic and spherical lenses; concave first surface, flat, spherical and free form mirrors; dispersing, dove, penta, porro, roof and wedge prisms; flat, free form and spherical windows. Half-Ball-Lenses for high power LEDs and Hybride-Optical-Elements. Contact: Martin Pfeil, Managing Director, martin.pfeil@mouldedoptics.com.

MOXTEK

#6358

452 W 1260 N, Orem, UT, 84057
801/225-0930; fax 801/221-1121
moxtek@moxtek.com; www.moxtek.com

New Product: Polarizers now extending into Ultra Violet and Infrared. Check out the NEW Absorptive products!

Moxtek specializes in wire-grid polarizers up to 8-inches in diameter for use in consumer displays, scientific instruments, industrial and military applications ranging from the UC to LWIR. Moxtek is interested in high-volume and custom applications of wire-grid polarizers and other nano-photonics devices. Contact: Will Abraham, Sales, wabraham@moxtek.com; Jim Meyer, Sales, jmeyer@moxtek.com.

MPA Crystal Corp.

#1240



1702-L Meridian Ave., #234
San Jose, CA 95125
408/300-0301; fax 408/300-0282
www.mpa-crystal.com

New Product: Sapphire, Fused Silica, Silicon, Glass, YAG; Windows, Lenses, Rods and tips, Custom made Optics.

We specialize in producing crystal optics mainly made of Sapphire, Fused silica, Silicon, Glass, YAG and Germanium, all custom made to your specs. Products include Windows, Lenses, Substrates, Rods, Tips, Prisms, Cylindrical lenses and any special shapes from customer's design. Coating is available as well. All products are made in our own manufacturing facility of Nanjing Sapphire Electro-Optics located in China (United States Branch: MPA Crystal Corp.). Contact: Pauline Liang, Chief Executive Officer, pmpa@mpa-crystal.com.



EXHIBITION MAP/RESTAURANT GUIDE SPONSOR

MPB Communications Inc.

#6114



147 Hymus Blvd, Pointe-Claire, QC, Canada, H9R 1E9
514/694-8751; fax 514/694-6869
info@mpbc.ca; www.mpbcommunications.com

New Product: New to our VFL-P Series of visible fiber lasers: 514, 628, and 642 nm. Adjustable up to 200 mW CW.

Since 1977, MPBC has been manufacturing high-performance photonic products for the military, telecommunications, industrial and research markets. MPB products include the world's smallest Excimer Lasers; Raman Fiber Lasers and Amplifiers; Visible Polarized Yellow/Green/Orange/Red, Ytterbium, Erbium-Ytterbium, and Passively Mode-Locked Fiber Lasers; high-power EFAs, C- and L- Band Erbium Broadband Sources, CombSources, FBGs, etc. Contact: Claudette Linton, Account Executive, claudette.linton@mpbc.ca; Kim Boumansour, Account Executive, kim.boumansour@mpbc.ca.

MRC Optics, a PPGI company

#1410

6455 Parkland Dr, Sarasota, FL, 34243
947/753-8707; fax 947/751-4249
sales@mrcoptics.com; www.ppgrpinc.com

Manufacturer and designer of precision metal and infrared optical components, systems and sub-assemblies. Full in-house aspheric diamond machining, plating, polishing and testing capability. Materials include all non-ferrous metals, crystals, beryllium and composites. Products include polygons, aspheric components, off-axis parabolics, large flat mirrors and multi-mirror systems. Contact: Tom Crafts, Director of Sales, tcrafts@mrcoptics.com.

mso jena GmbH

#1929



Carl-Zeiss-Promenade 10, Jena, Germany, 07745
49 3641 35 2930; fax 49 3641 35 2935
info@mso-jena.de; www.mso-jena.de

New Product: Optical interference filters with single and multiple narrow rejection bands for life science.

mso jena is a leading German manufacturer of interference coatings, e.g. interference filters, thin-film polarizers and AR/HR-coatings. Spectral reflectance and transmittance of the coatings are adjusted according to specific needs in the UV-NIR spectral range. The coatings excel by long term spectral stability and high mechanical hardness. In combination with photolithography patterned coatings or filter arrays are produced, e.g. for spectral masking of photodiodes. Contact: Uwe Schallenberg, Managing Director, info@mso-jena.de; Reinhard Dohle, Technical Sales, info@mso-jena.de.

MTI Corp.

#2027



860 S 19th St #B, Richmond, CA, 94804
510/525-3070; fax 510/525-4705
info@mtixtl.com; www.mtixtl.com



CONFERENCE BAG INSERTS; EXHIBITION MAP/RESTAURANT GUIDE SPONSOR

Multiwave Photonics

#6107

Rua Eng Frederico Ulrich 2650, Moreira da Maia,
Portugal, 4470-605
351 22 9408260; fax 351 22 9408261
www.muliwavephotonics.com

New Product: Pulsed fiber lasers (MOPA) for materials processing and LIDAR, at 1 μ m and 1.5 μ m.

Muliwave Photonics offers next generation pulsed fiber lasers that allow the user to control its key operating parameters in unique ways. Muliwave also offers other innovative optical sources based on fiber-optic technologies, such as cw and pulsed broadband and narrowband sources, as well as single polarization optical amplifiers and diode drivers. Contact: Steven Wagner, Director of Sales and Marketing, swagner@multiwavephotonics.com; Jose Salcedo, Chief Executive Officer, jsalcedo@multiwavephotonics.com.

Naked Optics Corp.

#6327



16 Mt. Bethel Rd #374, Warren, NJ, 07059
908/685-0352; fax 908/325-0250
sales@nakedoptics.com; www.nakedoptics.com

Supplier of IR optics and diamond-turned components with aspheric, diffractive and free-form surfaces in IR materials, plastics and metals; optical design services; IR materials including ZnSe, Sapphire, BaF₂, CaF₂ and optical glasses in finished and blank forms: raw optical glass, molded and CNC-machined blanks of all optical materials.

Nalux Co., Ltd.

#233

Yamazaki 2-1-7, Shimamaoto-cho, Mishima-gun, Osaka, Japan, 618-0001
81 75 963 3456; fax 81 75 963 3450
sales-osaka@nalux.co.jp; www.nalux.co.jp

New Product: Lens unit for IR, Optical filters, LED lenses and Glass lenses.

Nalux is a global leader, in high volume manufacturing services, for high performance, plastic optics, glass optics and micro-optical elements including diffractive gratings, microlens array, free-form surface optics, sub-wavelength structures, prisms, mirrors and other types of optics with various shapes. Nalux also offers lens units, Optical filters, LED lenses and Glass lenses. Contact: Seiichiro Kitagawa, President, kitagawa@nalux.co.jp; Yoji Kitano, General Manager, kitano@nalux.co.jp.

Nanjing Chunhui Science and Technology Industrial Co., Ltd.

#6617

SPIE Corporate Member

30 Andeli Yuhua W Rd, Nanjing, Jiangsu, China, 210012
86 25 85017569; fax 86 25 52436126
chunhui@china-light-guides.com; www.china-light-guides.com

Nanjing Sapphire Electro-Optics Co., Ltd. #1240

219 N Zhongshan Rd, Hongtu Office Tower #1001, Nanjing, China, 210009
pmpa@mpa-crystal.com; www.saifei.com/mpa-crystal.com

New Product: Sapphire, Fused Silica, Silicon, Glass, YAG; Windows, Lenses, Rods and tips, Custom made Optics.

Specialize in producing crystal optics mainly made of Sapphire, Fused silica, Silicon, Glass, YAG and Germanium, all custom made to your specs. Products include Windows, Lenses, Substrates, Rods, Tips, Prisms, Cylindrical lenses and any special shapes from customer's design, coating as well. All products are made in our own manufactory of Nanjing Sapphire in China (US Branch: MPA Crystal Corp.). Contact: Pauline Liang, CEO, pmpa@mpa-crystal.com. www.saifei.com; www.mpa-crystal.com. Contact: Pauline Liang, CEO, pmpa@mpa-crystal.com.

Nanonics Imaging Ltd.

#1539

Manhat Technology Park, Malcha Jerusalem, Israel, 91487
972 2 6789 573; fax 972 2 6480 827
info@nanonics.co.il; www.nanonics.co.il

New Product: Optometric 4000 Photonics Workstation combines AFM/Far/Near-field light nano-characterization.

Single and Multiprobe AFM/NSOM/SPM/Confocal Systems hallmarked by transparent optical and electron/ion beam integration. Multiprobe plasmonic, photonic, electrical and thermal characterization. On-line Raman/TERS, SEMs, FIBs, 10°K operation. All AFM/NSOM modes with silicon or transparent fiber probes. NanoTool Kit™ of Optical, Electrical, Thermal and Nanochemical Deposition Probes with Deep trench/side wall imaging. Visit and see the Unique Multi-probe Photonic/plasmonic Characterization System.

Nanoplus Nanosystems and Technologies GmbH

#6342

Oberer Kirschberg 4, Gerbrunn, Germany, 97218
49 931 908 270; fax 49 931 908 2719
daniela.brueckner@nanoplus.com; www.nanoplus.com
Nanoplus designs, produces and sells DFB and FP Laser Diodes between 760 nm and 3000 nm as well as Quantum Cascade Laser from 5 µm to 14 µm. The devices are suitable for various applications such as gas sensing, emission control, metrology and atomic clocks. Contact: Daniela Brückner, Sales and Marketing, daniela.brueckner@nanoplus.com.

Nanoscribe GmbH

#6711

Hermann-von-Helmholtz-Platz 1, Eggenstein-Leopoldshafen, Germany, 76344
49 7247 828840; fax 49 7247 828848
info@nanoscribe.de; www.nanoscribe.de

New Product: Laser lithography systems for true 3D micro- and nanostructuring achieving line widths below 150 nm.

Nanoscribe develops compact and easy to operate table-top laser lithography systems, allowing for true 3D micro- and nanostructures in commercially available photoresists with routinely achieved line widths of 150 nm in a sample volume of 300x300x80 µm. A functional and intuitive user interface eases the realization of arbitrary CAD designs. Applications are in photonics, microfluidics or life sciences, e.g., rapid prototyping of three-dimensional extracellular matrices for cell growth studies. Contact: Steffen Holtwick, CMO, info@nanoscribe.de; Martin Hermatschweiler, CEO, info@nanoscribe.de.

National Aperture, Inc.

#546

SPIE Corporate Member

16 Northwestern Dr, Salem, NH, 03079
603/893-7393; fax 603/893-7857
sales@nationalaperture.com; www.nationalaperture.com

National Instruments

#835

11500 N Mopac Expwy, Austin, TX, 78759
866/474-2463; fax 512/683-9300
info@ni.com; www.ni.com

National Instruments is a technology pioneer and leader in virtual instrumentation - a revolutionary concept that has changed the way engineers and scientists approach measurement and automation. Using PCs and commercial technologies, virtual instrumentation increases productivity and lowers costs for test, control, and design applications through easy-to-integrate software and modular measurement and control hardware. Contact: Nick Marquez, Product Marketing Engineer, nick.marquez@ni.com.

Nature Publishing Group

#6399A

75 Varick St, New York, NY, 10013
212/726-9200; fax 212/696-9591
www.nature.com

Nature Publishing Group brings leading scientific and medical research to your desk top. The NPG portfolio combines the continued excellence of Nature and associated research, review journals, over 42 leading academic society journals+8 Nature Clinical Practice journals. NPG provides news content through Nature News + scientific career information through Naturejobs. Visit NPG stand 6399A to pick up free sample copies subscribe at the conference rate or enquire about advertising opportunities NPG. Contact: Gurpreet Gill-Bains, Marketing Manager, g.gill-bains@nature.com; Jane Macmillan, Manager Special Projects, j.macmillan@nature.com.

Navitar

#941

200 Commerce Dr, Rochester, NY, 14623
585/359-4000; fax 585/359-4999
info@navitar.com; www.navitar.machinevision.com

New Product: New Custom Dual Magnification Lens System.

Navitar, a leader in imaging optics technology, manufactures a wide range of machine vision and electronic imaging products for research, scientific and OEM applications. Our Optical Wizard lens selection tool is available online 24/7 to help generate basic and customized solutions. With expert application engineers, dedicated account managers and unrivaled customer support, we are equipped to deliver the most reliable optical solutions to you. Contact: Craig Fitzgerald, c_fitzgerald@navitar.com.

Photonics West Exhibitor Directory

neoplas control GmbH

#1801

Walther-Rathenaur-Str 49a, Greifswald, Germany, 17489
49 3834 515 400; fax 49 3834 515 401
contact@neoplas-control.de; www.neoplas-control.de

New Product: Q-MACS Process fibre - a portable monitoring system for on-line measurements of industrial processes.

neoplas control GmbH is a center of competence for gas and plasma diagnostics and environmental technology for industrial applications. Our mission is to provide pioneering work for your operations in gases and plasmas. Our product portfolio Q-MACS represents an outstanding solution for on-line process control and measurement applications. Contact: Jürgen Röpcke, Chief Executive Officer, roepcke@neoplas-control.de; Bärbel Hannover, Manager Administration and Accounting, hannover@neoplas-control.de.

Nerac, Inc.

#6191

One Technology Dr, Tolland, CT, 06084
860/872-7000; fax 860/872-6026
info@nerac.com; www.nerac.com

New Product: Nerac's Emerging Technology Evaluation watches markets to identify signs of new technology activity.

Nerac is a research and advisory firm for companies developing innovative products and technologies. Nerac Analysts provide critical custom research, analysis and advisory services, helping clients drive product innovation through timely assessments of product and technology development opportunities, competitive analysis, identification of emerging technologies and opportunities, intellectual property strategies, compliance requirements and more. Contact: Karen Sheridan, Marketing Operations, ksheridan@nerac.com; Susan Lucek, Marketing Manager, slucek@nerac.com.

New England Photoconductor Corp.

#444



253 Mansfield Ave, PO Box M, Norton, MA, 02766-0927
508/285-5561; fax 508/285-6480
nepcorp@nepcorp.com; www.nepcorp.com

New Product: Photo-Voltaic PbSe IR Detectors and linear arrays with built in amplifiers.

Lead Sulfide (PbS), Lead Selenide (PbSe), and Indium Gallium Arsenide (InGaAs) infrared detectors. Photo-Voltaic PbSe IR Detectors and Emitters. N.E.P. offers room temperature and thermoelectrically cooled assemblies, available in standard and custom hermetic packages with custom optical filters and testing. N.E.P. also offers linear arrays up to 256 elements with multiplexing, quad detectors, amplifiers, thermoelectric cooler controllers and custom control electronics. Contact: Richard Brennan, Operations Manager, nepcorp@nepcorp.com; Paul Brennan, Engineer, pb@nepcorp.com.

New Scale Technologies, Inc.

#341



121 Victor Heights Pkwy, Victor, NY, 14564
585/924-4450; fax 585/924-4468
sales@newscaletech.com; www.newscaletech.com

New Product: New TRACKER position sensor: smallest, highest-resolution mini encoder is robust and cost-effective.

We create ingeniously small motion systems based on our patented piezoelectric SQUIGGLE® motor, the world's smallest linear motor, and TRACKER™ position sensor. SQUIGGLE motors are more compact, precise, robust and power-efficient than other micro motors. TRACKER sensors integrate magnetic sensing with on-chip digital encoding for smaller size, higher resolution than mini optical encoders. Our motors, encoders and modules inspire smaller products: optical systems, lasers, endoscopes and more. Contact: Roberta Drew, Sales Office Manager, rdrew@newscaletech.com.

New Source Technology, LLC

#6271



1249 Quarry Ln Ste 100, Pleasanton, CA, 94568
925/829-8828; fax 925/829-8883
sales@newsourcetechnology.com; www.
newsourcetechnology.com

New Product: Non-Linear Optics.

New Source Technology, a worldwide supplier of laser and electro-optical components, has supported Laser OEMs with quality products, on-time delivery, technical support and competitive pricing. For over 12 years, we have supported our OEM customers with Flash Lamps, Optics, Pump Cavities, Power Supplies and Laser Rods. This year we have introduced non-linear optics to our product portfolio for critical cutting edge applications. Contact: Simi Kaur, Sales Engineer, skaur@newsourcetechnology.com; Gregory Pon, President, gpon@newsourcetechnology.com.



INTERNET PAVILION; WI-FI SPONSOR

Newport Corp.

#817



1791 Deere Ave, Irvine, CA, 92606-4814
949/863-3144; fax 949/253-1680
sales@newport.com; www.newport.com

At Newport we believe that the best way to enhance life and fuel discovery is to support experts, by being experts. As a global company, we draw upon expertise from around the world to deliver knowledge and solutions that make manage and measure light. Combined with the expertise from Spectra-Physics Lasers, Oriel Instruments, Richardson Gratings and Corion Fluorescence Filters, we partner with scientists, engineers and OEMs to provide them with solutions that help make a world of difference. Contact: Gary Spiegel, Vice President Sales and Services, gary.spiegel@newport.com; Randy Heyler, Senior Director, Strategic Marketing, randy.heyler@newport.com.

Nextreme Thermal Solutions, Inc.

#6198A



3908 Patriot Dr Ste 140, Durham, NC, 27703-8031
919/597-7300; fax 919/597-7301
info@nextreme.com; www.nextreme.com

New Product: The OptoCooler module is suited for the cooling and temperature control of optoelectronic devices.

Nextreme Thermal Solutions designs and manufactures microscale thermal and power management products for the photonics, telecommunications, semiconductor, consumer, automotive and defense/aerospace industries. The company has embedded cooling, temperature control and power generation capabilities into the widely accepted copper pillar bumping process used in high-volume electronic packaging.

Nikon Corp.

#6351



10-1 Asamizodai 1-Chome, Sagami-hara City, Kanagawa,
Japan, 228-0828
81 42 740 6376; fax 81 42 740 6336
info.glass@nikon.co.jp;
http://nikon.com/products/glass/index.htm

Nikon Glass Division will exhibit optical materials, such as fused silica glass, calcium fluoride and i-line glass that offers extremely high standards of purity, a homogenous index of refraction and superior durability. Contact: Masahiko Sugisaki, info.glass@nikon.co.jp.

NOW ONLINE AT electrooptics.com



The screenshot shows the electrooptics.com website with a navigation bar at the top containing the logo and a 'click here to subscribe' button. Below the navigation bar is a news feed with several articles. The first article is titled 'Heptagon opens first US office' and mentions 'Photonics people'. The second article is titled 'Photonics West receives record numbers of visitors' and includes a photograph of a busy exhibition hall. The website layout includes a search bar, a sidebar with 'PHOTONICS' and 'PHOTONICS BUSINESS' sections, and various promotional banners for software and events.

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Photonics West Exhibitor Directory

nLIGHT Corp.

#1843



5408 NE 88th St Bldg E, Vancouver, WA, 98665-0989
360/566-4460; fax 360/546-1960
sales@nlight.net; www.nLIGHT.net/pw09

New Product: Pearl modules, based on single emitter architecture, offer advantages in efficiency and reliability.

nLIGHT is a leading supplier and innovator of high-power semiconductor lasers and high-performance fibers for industrial, medical, defense and consumer applications. Our solutions offer a competitive advantage in performance, reliability and efficiency. Global support is provided through state-of-the-art manufacturing and application centers in North America, Europe and Asia. www.nlight.net Contact: Joe DeBartolo, Vice President Marketing and Sales, Ivana Redr, Sales Assistant.

NM Laser Products Inc.

#1139

337 Piercy Rd, San Jose, CA, 95138
408/227-8299; fax 408/227-8265
sales@nmlaser.com; www.nmlaser.com

New Product: LSTX series high energy, large aperture shutters for safety and pulse gating.

Manufacturer of Laser Shutters for Safety Interlocking, Modulation, Exposure, Gating and Process Control. Custom products for OEMs. Standard products offer a wide selection of package geometries and apertures for most commercial lasers. Full line of electronic controllers for shutters. Contact: David Woodruff, Sales Engineer, dave@nmlaser.com.

NOIR LaserShield

#244



Laser Shields, 6155 Pontiac Trl, South Lyon, MI, 48178
800/521-9746; fax 734/769-1708
agleicher1@aol.com; www.noirlaser.com

New Product: NoIR announces a line of High Visibility filters: 10 with VLT >50% and 15 >35%.

NoIR LaserShields provide industry-defining protection and visibility with an eye on comfort. NoIR offers 85 laser protective filters with higher Optical Densities, L-ratings and Visible Light Transmittance in more frame styles than others, making LaserShields the point where safety and comfort converge. Contact: David W. Bothner, Marketing Director, david.bothner@noirlaser.com; Mary Klinke, International Sales, mary.klinke@noirlaser.com.

Norland Products Inc.

#6284

Bldg 100, 2540 Rte 130, Cranbury, NJ, 08512
609/395-1966; fax 609/395-9006
www.norlandproducts.com

New Product: NBA 108 temporary UV adhesive for heavy polishing and grinding can be released with acetone.

Manufacturer of UV curing Optical and Electronic adhesives and UV light sources. Norland Optical Adhesives are designed for fast, precision bonding and will simplify processes that require critical alignment and exact positioning. These one component, solventless adhesives will set in seconds when exposed to ultraviolet light and can provide excellent light transmission over a wide spectral range. Contact: Tim Norland, General Manager, tnorland@norlandproducts.com.

NorPix, Inc.

#6395

1751 Richardson St Ste 6117, Montreal, QC, Canada, H3K 1G6
514/846-0009; fax 514/846-0117
sales@norpix.com; www.norpix.com

North American Coating Laboratories

#6181

9450 Pineneedle Dr, Mentor, OH, 44060
440/357-7000; fax 440/357-7001
info@nacl.com; www.nacl.com

North American Coating Laboratories provides optical coatings for a variety of customers in the polymer and glass optics markets. Our experience in both dip and vacuum-applied processes make NAACL one of the most respected organizations in the optical coatings field. Our coating competencies include Protective, Scratch-resistant, Reflective, Anti-reflective, Filter, Conductive, ITO, and Chemically Resistive coatings. North American Coating Laboratories is certified to ISO 9001:2000 standards. Contact: Dan Fiore, Business Development Manager, dfiore@nacl.com; Brian Wilson, President, bwilson@nacl.com.

Northrop Grumman Cutting Edge Optronics

#1011



20 Point W Blvd, St Charles, MO, 63301
636/916-4900; fax 636/916-4994
st-ceolaser-info@ngc.com;
www.st.northropgrumman.com/ceolaser

Northrop Grumman Cutting Edge Optronics is a leading supplier of high-power laser diodes, DPSS modules, laser diode drivers and complete DPSS laser systems. Many of our diode laser based products have become industry standards and are used in a wide variety of commercial and military applications. The company is registered to ISO 9001:2000, and is located in St. Charles, Missouri. Contact: John Goings, North American Sales Manager, john.goings@ngc.com; Brad DeBok, International Sales Manager, brad.debok@ngc.com.

Northrop Grumman Synoptics

#1011

1201 Continental Blvd, Charlotte, NC, 28273
704/588-2340; fax 704/588-2516
stsynoptics@ngc.com;
www.st.northropgrumman.com/synoptics

New Product: Synoptics now offers bonded crystal rods and slabs tailored to customer specifications.

Northrop Grumman SYNOPTICS is the world's leading manufacturer of crystals for use in solid-state lasers. We also manufacture a line of specialty crystals and Air Spaced Polarizers for use at 1064nm. Products are used in applications in the military, scientific, medical and industrial markets. Materials include Nd:YAG, CTH:YAG, Er:YAG, Nd:YLF, Nd:YVO₄, KTP, Alexandrite, Cr⁴⁺:YAG, Co:Spinel and Yb:YAG. Contact: Scott Griffin, Director, Sales and Marketing, scott.e.griffin@ngc.com; Clark Tooty, clark.tooty@ngc.com.

Novacam Technologies Inc.

#1700

277 Lakeshore Rd Ste 04, Pointe-Claire, QC, Canada, H9S 4L2
514/694-4002; fax 514/630-6420
info@novacam.com; www.novacam.com

New Product: Microcam-4D - Swept Source SS-OCT detector for imaging in bio-photonics and industrial applications.

Novacam Technologies is manufacturer of OCT-Optical Coherence Tomography detectors for cross section imaging of the tissue for bio-medical applications, and fiber-based profilometers based on low coherence interferometry with precision of less than 1 micron μ m. Profilometers are used for surface mapping and inspection, roughness measurements, process control, multi-layer film thickness, deposition testing, metrology, and profilometry in inhospitable environments and restricted spaces. Contact: Vuk Bartulovic, President, info@novacom.com.

NovaWave Technologies

#6902

900 Island Dr #101, Redwood City, CA, 94065
650/610-0956; fax 650/610-0986
www.novawavetech.com

New Product: Novawave's IRIS™ 1000, is the world's 1st commercially available turnkey, DFG-based, laser system.

NovaWave's mission is next-generation, laser-based chemical sensors for a wide range of commercial and military applications. These fieldable, sensors are suitable for chemical and biological agent detection, trace explosives sensing, greenhouse gas and pollution monitoring, and basic and applied research. NovaWave offers enabling photonics tools, including high performance optical and fiberoptic components, turnkey, all-solid state laser sources for spectroscopy, and optical metrology. Contact: Larry Peterson, Sales Manager, lcpeterson@novawavetech.com; James J. Scherer, President, jjscherer@novawavetech.com.

Novotech, Inc.

#6508

SPIE Corporate Member

916 Main St, Acton, MA, 01720
978/929-9458; fax 978/929-9459
contact@novotech.net; www.novotech.net

Novotech, Inc. is a global supplier and manufacturer of Infrared Materials and Products including Germanium, Silicon, Zinc Selenide and Zinc Sulfide. From generated lens blanks to windows to substrates to refining, we offer solutions. Contact: Peter Schwarzer, Account Manager, peters@Novotech.net; Michael Hulén, President, mhulen@Novotech.net.

NP Photonics

#6127

9030 S Rita Rd Ste 120, Tucson, AZ, 85747
520/799-7400; fax 520/799-7403
info@np Photonics.com; www.np Photonics.com

NP Photonics, a leading fiber laser company, manufactures some of the most stable lasers in the world for fiber sensing, LIDAR and R&D markets. Based on their specialty glass technology the company has developed narrow-linewidth fiber lasers with output powers up to 5W, as well as a family of advanced broadband ASE Sources. Contact: Christine Spiegelberg, Director of Marketing/Sales cspiegelberg@np Photonics.com; Tony Pisano, Sales and Business Development Manager, apisano@np Photonics.com.

nPoint, Inc.

#6341

SPIE Corporate Member

1617 Sherman Ave, Madison, WI, 53704
608/310-8770; fax 608/310-8774
stacy.clayton@npoint.com; www.npoint.com

nPoint, Inc. manufactures ultra-precision motion and control devices for nano-scale research and manufacturing. Our products include a series of nanopositioning systems that consist of stages and control electronics. The positioning products enable rapid, precise, and repeatable motion and are used in a wide range of applications including aerospace, semiconductor industries and life sciences. Contact: Katerina Moloni, VP of Product Development, katerina.moloni@npoint.com; Sharath Chandrasekaran, Technical Sales Engineer, sharath@npoint.com.

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Located Convention Center Lower Arcade.

NTT Electronics Corp.

#6340

Shibuya Mark City, 1-12-1 Dogenzaka, Shibuya-ku Tokyo, Japan, 150-0043
81 3 5456 4675; fax 81 3 5456 4604
sales@photo.nel.co.jp; www.nel.co.jp

New Product: Wavelength conversion lasers (visible and mid-IR ranges) and NIR DFB lasers with TEC-CAN packages.

NTT Electronics Corporation (NEL) develops, produces and provides innovative semiconductor lasers for communication, sensor, and medical markets. Products include semiconductor lasers in near-IR range, wavelength conversion lasers (WCLs) in visible and mid-IR ranges and PPLN chips/modules. Newly developed WCLs can be operated in direct modulation mode up to 1MHz. Contact: Fumiaki Hyuga, Sales Director, hyuga@hqs.nel.co.jp.



COFFEE BREAK SPONSOR

Nufern

#2039

SPIE Corporate Member

7 Airport Park Rd, East Granby, CT, 06026
866/466-0214; fax 866/844-0210
info@nufern.com; www.nufern.com

Nufern® is a leading United States manufacturer of specialty optical fibers, fiber lasers and amplifiers serving diverse markets. Current products include over 300 standard fibers and range from sub-assemblies to complete turn-key fiber lasers and amplifiers. Nufern's integrated teams also provide rapid, cost-effective OEM fiber laser design, assembly and contract manufacturing. Contact: Fernando Martins, Customer Service Manager, fmartins@nufern.com; Violet D'Antonio, Customer Service Specialist, vdantonio@nufern.com.

NuPhoton Technologies, Inc.

#5137

41610 Corning Pl, Murrieta, CA, 92562
951/696-8366; fax 951/696-8394
info@nuphoton.com; www.nuphoton.com

New Product: Half-MSA DWDM EDFA with electronics: 17dBm output, 70 x 43 x 12mm. Gain flattened, i and o isolators.

Nuphoton is a pioneer in Er/Yb doped fiber amplifiers and laser sources. Product range includes fiber amplifiers, ASE sources, and high power laser sources for LIDAR, industrial applications and free space communications. Products are available in 1550 nm and 1 um wavelengths. Nuphoton is ISO 9001: 2000 AS9100 RevB certified. Contact: Norm Nelson, VP, Business Development, norm@nuphoton.com; Dr. Ram Pillai, President and CEO, ram@nuphoton.com.

NuSil Technology

#6235

1050 Cindy Ln, Carpinteria, CA, 93013
805/684-8780; fax 805/684-2365
silicone@nusil.com; www.nusil.com

NuSil Technology's Lightspan® brand of silicone products delivers precise, custom formulations and the most comprehensive line of high-refractive index matching adhesives, encapsulants and fluids available.

NuSil offers testing services for optical materials characterization. The benefits of silicones include: Thermal Stability, Low Modulus, Low Shrinkage, < 1%, Low Ionic Species, Optical Clarity, Low Outgassing, Low Moisture Absorption and UV Resistance. Contact: Michelle Velderrain, Senior Technical Specialist, michelle@nusil.com; Bill Riegler, Product Director-Engineering Materials, billr@nusil.com.

Photonics West Exhibitor Directory

Nutfield Technology, Inc.

#1536

49 Range Rd, Windham, NH, 03087
603/893-6200; fax 603/893-6214
www.nutfieldtech.com

New Product: QuantumScan-30 galvanometer for 20 to 40 mm apertures. ScanWare Windows® based scanhead control software.

Manufacturers of standard and custom laser scanning components. Precision multi-axis scan heads with PC interface and Windows® control software. Moving magnet galvanometers for raster and vector applications. Optical scanning solutions for 5- 50 mm apertures and all laser wavelengths. Contact: Rolland Zeleny, Vice President Sales and Marketing.

O2view B.V.

#6270

Buurt IV 24, Marken, The Netherlands, 1156 BH
31 6 53 934140
www.o2view.com

New Product: Artemis: Real-time Multispectral Stereoscopic HD Vision System for clinical molecular imaging.

O2view B.V. is the innovative company in the area of bio-photonic camera design for medical applications. We design and manufacture cutting edge devices based on multispectral imaging essential for, e.g., surgical applications. The signature product 'Artemis' incorporates many world premieres: Stereoscopic vision based on two 5-channel prisms, DMD-lighting, and real-time electronics. Artemis will be launched for molecular imaging in the area of surgical oncology. Contact: Rene G.M. van Melick, CEO, info@o2view.nl; Dirkjan Bakker, Director, info@o2view.nl.

Ocean Optics, Inc.

#1501



830 Douglas Ave, Dunedin, FL, 34698-5761
727/733-2447; fax 727/733-3962
info@oceanoptics.com; www.oceanoptics.com

New Product: The ColorBug WiFi is an ingenious hand-held device for testing color and luminosity.

There's always something exciting happening at Ocean Optics, whether it's the introduction of a new product or a key move into a new market area. This year we are pleased to introduce innovations including the multi-channel Jaz, Multi-Spectral Imaging and our latest NIR Systems. With full-service locations in the United States, Europe and Asia, we serve a wide range of markets, including process control, consumer electronics and medical diagnostics.

Ocean Thin Films. 1310
formerly Oerlikon Optics Inc.

Ocean Thin Films

#1310

formerly Oerlikon Optics Inc.



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303/273-9700; fax 303/273-2995
www.oceanthinfilms.com

OFR, a Division of THORLABS

#1237

PO Box 82, Caldwell, NJ, 07006
973/228-4480; fax 973/228-0915
info@ofr.com; www.ofr.com

OFS - Specialty Photonics Div.

#1640



55 Darling Dr, Avon, CT, 06001
860/678-0371; fax 860/674-8818
info@specialtyphotonics.com; www.specialtyphotonics.com

Ohara Corp.

#522



23141 Arroyo Vista Ste 200, Rancho Santa Margarita, CA, 92688-2613
949/858-5700; fax 949/858-5455
sales@oharacorp.com; www.oharacorp.com

Manufacturer of precision optical glasses available as strip/slab, cut/molded blanks, high-homogeneity blanks, fine gobs and polished ball lenses, near UV transmitting i-Line glasses, ultralow/zero expansion glass, negative expansion and glass ceramic substrates, CaF₂, and Fused Silica (standard and excimer grade). Supplier of double-sided polished substrates (low surface roughness/excellent flatness). Contact: Brion Hoffman, President, brionhoffman@oharacorp.com; Chris Ghio, Sales Manager, chrisghio@oharacorp.com.

Okamoto Optics Co., Ltd.

#6421

8-34 Haramachi, Isogo-Ku Yokohama, Japan, 235-0008
81 45 751 2233; fax 81 45 752 1954
sales@okamoto-optics.com; www.okamoto-optics.com

New Product: High accuracy cylinder optics, large stage mirrors, meter scale laser optics and coatings.

Okamoto Optics has been manufacturing precision optics for over 65 years. Located in Yokohama, Japan, Okamoto Optics develops and manufactures a broad range of custom optics and thin film coatings for scientific research, high energy lasers, lithography, medical, and industrial products. Some of our special capabilities include high damage threshold coatings up for substrates up to a meter in size, computer controlled polishing, and meter+ phase measuring interferometry using stitching technology. Contact: Flemming Tinker, Sales Representative, ftinker@ftoptics.com.

Olis, Inc.

#6410

130 Conway Dr Suites ABC, Bogart, GA, 30622
706/353-6547; fax 706/353-1972
sales@olisweb.com; www.olisweb.com

New Product: Nanoparticle Characterization System: UV/Vis/NIR Absorbance and Fluorescence of Liquid and Solid Samples.

NIR fluorimeters for high sensitivity matrix scanning of nanoparticles. Scatter, reflectance and millisecond spectral scanning are optional. Ranges are 800-2500 nm or 185-2600 nm; detector choices include PbS, InGaAs and CCD's. A new company to Photonics West, but a 35 year veteran of creating high end UV/Vis and NIR absorbance and circular dichroism spectrometers for the life science industry, OLIS, Inc. is a must-visit booth. Talk with Paul Boxrud and Kristi Folden about your ideal instrument. Contact: Kristi Folden, Technical Sales Associate, kristi@olisweb.com; Paul Boxrud, Technical Sales Associate/Staff Scientist, paul@olisweb.com.



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Photonics West Exhibitor Directory

Omega Optical, Inc.

#215



Delta Campus, 21 Omega Drive, Brattleboro, VT, 05301
802/251-7300; fax 802/254-3937
sales@omegafilters.com; www.omegafilters.com

Omega Optical offers standard and custom high performance optical filters. The extensive range of products includes bandpass, longpass/shortpass, rejection bands, dichroic beamsplitters/mirrors, neutral density, UV, analytical and laser line filters. Contact: Ruth Gorham-Houle, Vice President of Business Development, rgorham@omegafilters.com.

Omicron Laserage GmbH

#1627

Raiffeisenstr 5E, Rodgau-Dudenhofen, Germany, 63110
49 6106 8224 20; fax 49 6106 8224 10
www.omicron-laser.de

New Product: New Blue Photon 488nm diode laser modules, producing 20mW at 488nm in a compact package.

Omicron has been developing, designing and producing innovative diode lasers and DPSS laser from 375nm to 1064nm since 1989. The highly-qualified team has since specialized in the development of individual customer solutions in the application areas of research and biotechnology, digital imaging and optic data storage, as well as quality assurance, test and measurement applications and medicine. Contact: Philip Crowley, Sales, Phil@markettechinc.net.

Ondax, Inc.

#5069



850 E Duarte Rd, Monrovia, CA, 91016
626/357-9600; fax 626/357-9321
sales@ondax.com; www.ondax.com

New Product: Ondax offers wavelength stabilized laser modules with matching ASE suppression and notch filters.

Ondax manufactures VHGs and wavelength stabilized lasers. The lasers are stabilized with the Ondax PowerLocker™ - a Volume Holographic Glass Grating that forces lasing at a specific wavelength with a narrow linewidth. The lasers are single mode with linewidths of 30MHz. They are available in TO can packages and modules. ASE suppression and notch filters also available. Wavelengths: 635 to 830nm. Apps: Raman spectroscopy, BioTech, flow cytometry, interferometry, homeland security, sensing. Contact: Linda West, VP Sales and Marketing, lwest@ondax.com; Dawn Ebertowski, Sales and Marketing Administrator, dawn@ondax.com.

Onefive GmbH

#6169

Oberwiessenstr 5, Zurich, Switzerland, 8057
41 43 538 36 57; fax 41 43 538 36 86
contact@onefive.com; www.onefive.com

New Product: Onefives femtosecond lasers: now >1 W average power laser and also rep rates up to 1.3 GHz available.

Onefive is a global supplier of industry-ready, low-noise ultrafast and kHz-linewidth single-frequency OEM lasers with guaranteed 24/7 operation. The passively air-cooled lasers are as user-friendly as a laser pointer, featuring true one-button operation. The product portfolio contains femtosecond and picosecond lasers in the 266 - 1560nm range, from single-shot to GHz repetition rates, as well as tunable single-frequency lasers with kHz linewidth for commercial, OEM and scientific applications. Contact: Gabriel Spuehler, CTO, contact@onefive.com.

OneLight Corp.

#1700



1755 W Broadway Ave Ste 314, Vancouver, BC, Canada, V6J 4S5
604/731-7496; fax 604/731-6948
sales@onelightcorp.com; www.onelightcorp.com

New Product: OneLight Spectra, our spectrally programmable light source, is a 2009 Prism Award Finalist.

OneLight is in the business of creating advanced illumination and imaging systems for health care and life science. Programmable illumination enables a new generation of smart imaging systems and new disposable surgical and diagnostic tools. By taking control with active illumination, OneLight's digital light engines generate quantitative illumination data that can be merged on the fly with image sensor data to produce a digital image with a dynamic range no camera alone can currently produce. Contact: Nick MacKinnon, President and Chief Executive Officer; Ulrich Stange, Vice President - R&D, ustange@onelightcorp.com.

Ontario Photonics Industry Network

#1700

2625 Queensview Dr Ste 200, Ottawa, ON, Canada, K2B 8K2
613/726-3430; fax 613/726-3424
info@ontariophotonics.com; www.ontariophotonics.com

The Ontario Photonics Industry Network, OPIN is an industry led organization representing over one hundred photonics related industries all across Ontario Canada. The OPIN vision is to become a sustainable, integrated, industry-led network of photonics related people, companies and organizations in Ontario that interact closely, share ideas and expertise within and across academic/industry boundaries and strive for mutual success. Contact: John Fielding, Executive Coordinator, john.fielding@ontariophotonics.com; Joseph Civitella, Executive Manager, JCivitella@ocri.ca.

On-Trak Photonics, Inc.

#1143

14 Goodyear Ste 130, Irvine, CA, 92618
949/587-0769; fax 949/587-9524
info@on-trak.com; www.on-trak.com

On-Trak Photonics is a manufacturer and distributor of position sensing detectors and support electronics. North American distributor for Sitek Electro-Optics. www.on-trak.com. Contact: Dave Hunnicutt, Director of Sales, dave@on-trak.com.

Onyx Optics Inc.

#1644

6551 Sierra Ln, Dublin, CA, 94568
925/833-1969; fax 925/833-1759
lreo@onyxoptics.com; www.onyxoptics.com

Onyx Optics' product capabilities include Adhesive-Free Bonded (AFB®) crystal and glass laser components such as laser rods, slabs, disks, and waveguiding structures. We work with materials such as doped and undoped YAG, YLF, YVO₄, sapphire, diamond, and spinel, as well as many others. Our patented composite technology enables higher efficiency, more compact and higher power solid state laser and photonic devices. Contact: Lesley Reo, Sales and Marketing Manager, lreo@onyxoptics.com.



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OPCO Laboratory, Inc.

#618

704 River St, Fitchburg, MA, 01420-2913
978/345-2522; fax 978/345-5515
rmoody@opcolab.com; www.opcolab.com

OPCO Laboratory, Inc. is your single source for your most demanding optical requirements. We provide design services, prototype, and high volume production solutions for analytical, medical, spectroscopy, semiconductor, machine vision, imaging, and defense markets worldwide. Our state-of-the-art manufacturing, coating, replication, QC, assembly, and class 1000 clean room facilities, guarantee precise, repeatable, and cost effective solutions for your high performance systems. As a full service in-house manufacturer, we can provide a wide range of high precision lenses, coated and replicated mirrors, metallic and dielectric thin film coatings, diffraction gratings, and turn-key electro/optical, and mechanical/optical assemblies. Contact: Robert Moody, Director Sales and Marketing, rmoody@opcolab.com.

Ophir-Spiricon, Inc.

#834

SPIE Corporate Member

60 W 1000 N, Logan, UT, 84321
435/753-3729; fax 435/753-5231
sales@ophir-spiricon.com; www.ophir-spiricon.com

New Product: NEW! High Performance Laser Beam Analyzer software suite, LBA-Version 5 will be introduced.

Ophir-Spiricon Inc. offers industry standard laser diagnostic instruments including laser power and energy, beam profile and propagation instruments. Contact: Kenneth Ferree, Vice President of Sales, Kenneth.Ferree@ophir-spiricon.com; Kevin Kirkham, Inside Sales Engineer, Kevin.Kirkham@ophir-spiricon.com.



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Opnext, Inc.

#634

SPIE Corporate Member

104 Treemont Dr, Orange City, FL, 34763
732/544-3400; fax 732/544-3540
info@opnext.com; www.opnext.com

New Product: The Opnext HL6387TG laser diode is for use in miniature display applications.

From the latest communications networks to new security systems, and to major advances in medical systems, Opnext laser technologies add the spark of innovation to a world of new applications. The company's industry expertise and commitment to R&D combine in bringing the next generation of laser-based products. Opnext has established its broad portfolio of solutions and solid reputation for excellence in service. Contact: James Brown, Director of Device Sales, North America, jbrown@Opnext.com; Bob Murphy, Director of Device Business Development, bmurphy@opnext.com.

OPOTEK, Inc.

#230

2233 Faraday Ave Ste E, Carlsbad, CA, 92008
760/929-0770; fax 760/929-8782
opotek@opotek.com; www.opotek.com

New Product: Introducing the Opolette HR series, compact 100Hz tunable laser systems incorporating a DPSS laser.

OPOTEK offers a wide range of efficient, compact and broadly tunable laser systems based on Optical Parametric Oscillator (OPO) technology. Our reliable and robust systems feature the smallest footprint in their category with tuning ranges from the ultraviolet to mid-infrared. All products are computer controlled and designed for a variety of applications including photochemistry, photobiology, hyperspectral imaging, mass spectrometry, pharmaceutical processing, and environmental monitoring. Contact: Eli Margalith, President, elimar@opotek.com; Lam Nguyen, Application Scientist, lknguyen@opotek.com.



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Photonics West Exhibitor Directory

OpSys Project Consulting

#6800

Hauptstr 3A, Schoeffengrund, Germany, 35641
49 1713 614502; fax 49 6445 7679
office@opsysconsult.com; www.opsysconsult.com

New Product: Custom designed light engines and optical systems, with focus on DLP® and other micro displays.

OpSys Project Consulting provides project management services for optical system development, enabled through a virtual engineering network. The services include design and engineering as well as procurement of samples and prototypes. Activities focus on optical systems for emerging, scientific and industrial applications using DLP® micro displays from Texas Instruments. OpSys Project Consulting is official representative of VISITECH AS, the leading VAR partner for DLP Discovery® systems. Contact: Alfred Jacobsen, Consultant, jacobsen@opsysconsult.com.

Optec S.p.A.

#732

 SPIE Corporate Member

Via Mantegna 34, Parabiago MI, Italy, 20015
39 0331 491945; fax 39 0331 495091
info@optec.eu; www.optec.eu

Optec S.p.A. (Optec) designs and manufactures high performance optical and optoelectronic components and systems. Optec's primary product lines include an extensive range of two to five channel spectral separation prisms for UV, visible and infrared applications, a comprehensive line of NIR and SWIR camera lenses and a broad portfolio of coupling optics for x-ray intensifier systems. Optec also has extensive experience in designing and building motorized opto-mechanical assemblies for lasers and imaging.

OptecNet Deutschland e.V.

#1801

Garbsener Landstr 10, Hannover, Germany, 30419
49 511 277 1290; fax 49 511 277 1299
optecnet@optecnet.de; www.optecnet.de

OptecNet Deutschland e.V. is the association of the nine regional Competence Networks for Optical Technologies in Germany. The German Competence Networks for Optical Technologies unite over 470 companies, research and education institutions, technology transfer agencies, business development companies, investors and public-law corporations. Their common aim is to support the development and application of Optical Technologies "made in Germany". Contact: Katharina Jaklin, Marketing, messe@optecnet.de.

OpTek Systems, Inc.

#6174

111 Smith Hines Rd Ste C, Greenville, SC, 29607
864/272-2640; fax 864/272-2630

With several world-firsts to our name, and with a presence across the globe, OpTek Systems is providing laser-based equipment solutions and manufacturing services into a wide range of industries from aerospace to pharmaceuticals, from electronics to packaging materials, from medical to optical. Contact: Andy Webb, Business Development Manager, Andrew.Webb@opteksystems.com.

Opti Temp, Inc.

#5038

 SPIE Corporate Member

484 W Welch Ct, Traverse City, MI, 49686
231/946-2931; fax 231/946-0128
information@optitemp.com; www.optitemp.com

Specializing in the design and manufacturer of custom liquid temperature control solutions for commercial, industrial, military and laboratory applications. Products include complete lines of re-circulating fluid "chillers", heat exchangers, filtration and water treatment products. Capacities ranging from 0.6 to 500kW. From simple "cost effective" solutions to elaborate "custom engineered" systems - Opti Temp has the experience to handle your process temperature control needs. Call today! Contact: Rob VanSumeren, Sales, r.vansumeren@optitemp.com.

Optical Filter Source, LLC

#5124

 SPIE Corporate Member

10109 McKalla Pl Ste F, Austin, TX, 78758
512/248-0605; fax 512/491-8735
jan@ofs-online.com; www.ofs-online.com

Optical Research Associates

#615

 SPIE Corporate Member

3280 E Foothill Blvd Ste 300, Pasadena, CA, 91107
626/795-9101; fax 626/795-9102
info@opticalres.com; www.opticalres.com

New Product: The LightTools® SolidWorks® Link Module Delivers Optimized Illumination Solutions.

Optical Research Associates will exhibit two optical design software products. LightTools® provides virtual prototyping, simulation, optimization and photorealistic renderings of illumination systems. CODE V® has state-of-the-art capabilities for lens optimization, analysis, tolerancing, beam propagation and coupling efficiency. Engineering services will also be exhibited. Contact: Stuart David, Director of Sales; James McGuire, Director of Optical Engineering Services.

Optical Society of America

#3015

2010 Massachusetts Ave NW, Washington, DC, 20036-1023
202/223-8130; fax 202/223-1096
info@osa.org; www.osa.org

Optical Support, Inc.

#3006

 SPIE Corporate Member

7840 E Broadway Blvd Ste 160, Tucson, AZ, 85710
520/750-7221; fax 520/203-0228
msavard@opticalsupport.biz; www.opticalsupport.biz

Optical Systems Corp. (OSC)

#6917

24830 Ave Rockefeller, Valencia, CA, 91355
661/257-2977; fax 661/257-3035
info@osc-usa.com; www.osc-usa.com

Optical Systems Corp. (OSC) is a full-service integration and automation company, providing process specific production and development system solutions for automated inspection, alignment, measurement and assembly of photonics devices and components. Part-handling, passive/active alignment, dispensing/bonding are a few of the technologies incorporated into turnkey system solutions. Contact: Randy Anderson, Sales, sales@osc-usa.com; Ae Basnett, Sales, sales@osc-usa.com.



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OPTICS 1, Inc. #533

SPIE Corporate Member

3050 Hillcrest Dr Ste 100, Westlake Village, CA, 91362
805/373-9340; fax 805/373-8966
agrant@optics1.com; www.optics1.com

OPTICS 1, Inc's uniquely experience staff has the broad background to design, develop, prototype and manufacture and integrate precision electro optical systems for commercial and government applications. We leverage our expertise in end-to-end system design within the disciplines of optics, mechanics, electronics and software to deliver state-of-the-art integrated systems. Contact: Alastair Grant, Business Development Manager, agrant@optics1.com; Dane Hileman, President, dhileman@optics1.com.

Optics Balzers (formerly Oerlikon Optics) #6085

SPIE Corporate Member

9035 Wadsworth Pkwy Ste 2000, Westminster, CO, 80021
720/407-7434; fax 303/502-6823
steffen.capello@opticsbalzers.com; www.opticsbalzers.com

A global leader in high volume OEM optical thin-film coating technology, components and sub assemblies for bio-photonics, automotive, advanced lighting, sensors and imaging markets. OEM Products include thin films, patterned dichroic filters, specialty coatings, gratings, and waveguides for life science/gene chip applications including wafer level manufacturing, patterned and coated low defect lids for CCD/CMOS/DLP 's, patterned solderable coatings for wafer level optical packaging, and optical coatings for automotive lighting. Optics Balzers AG is headquartered in Balzers, Liechtenstein, The US office is located in Westminster Colorado. Contact: Steffen Capello, office (720)407-7434, mobile (303)502-6823.

Optics for Hire #3018

455 Massachusetts Ave Ste 1, Arlington, MA, 02474
781/583-7810; fax 781/583-7812
john@opticsforhire.com; www.opticsforhire.com

New Product: Fast Scanning mirrors, single and dual axis.

Provides contract engineering and product development. Specialties include optical, mechanical and electronics design. 20 engineers in US, Ukraine and Belarus developing products for some of the industries best known companies. Contact: John Ellis, President.






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Left image: The USC Nanocenter. Courtesy of National Science Foundation.

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Optics Technology, Inc.

#333

3800 Monroe Ave, Pittsford, NY, 14534
585/586-0950; fax 585/248-2371
sales@opticstechnology.com; www.opticstechnology.com

Optics Technology, Inc. is a designer and manufacturer of miniature and sub-miniature optical mechanical systems, components and assemblies. Custom designs include microscope objectives, fiber-imaging eyepieces, laser collimators endoscopes and other micro-imaging devices. Designs are completed with manufacturability in mind. An attention to the tolerances and material selection during the design process yields prototypes that can be manufactured quickly and cost effectively. Contact: Dominick Polizzi, Director of Sales and Marketing, sales@opticstechnology.com; Paul Powell, CTO, info@opticstechnology.com.

OptiGrate

#5113

3267 Progress Dr, Orlando, FL, 32826-3230
407/381-4115; fax 407/384-5995
sales@OptiGrate.com; www.OptiGrate.com

New Product: Chirped Bragg gratings in PTR glass for stretching and compression in high power ultrafast lasers.

OptiGrate manufactures reflecting (RBG) and transmitting (TBG) volume Bragg gratings for stabilization of semiconductor, solid state and fiber lasers for wavelengths 350-3200 nm. Output couplers and high reflection Bragg mirrors with spectral bandwidth from 0.01 to 1.5 nm are manufactured. Longitudinal (CBG) and Transverse-Chirped (TC-RBG) reflecting Bragg gratings are available for ultrashort pulse stretching / compression, laser beam control, spectral beam combining and other applications. Contact: Vadim Smirnov, Director of Holography and Diffractive Optics, vsmirnov@optigrate.com; Igor Ciapurin, Project Manager, iciapurin@optigrate.com.

Optikos Corp.

#1039



107 Audubon Rd Bldg 3, Wakefield, MA, 01880
617/354-7557; fax 617/354-5946
sales@optikos.com; www.optikos.com

Optikos Corporation is the world's largest manufacturer of equipment for the measurement of optical image quality and a leading provider of optical product development services. As the world leader in the field of MTF testing, Optikos offers complete solutions for both component and system level tests on imaging systems operating from the ultraviolet to the far infrared. Optikos's product line includes testing suites for measuring the performance of optical and electro-optical imaging systems. Contact: Jamie Hutchins, Vice President Sales and Marketing, jhutchins@optikos.com; Ryan McDonough, Senior Sales Executive, rmcdonough@optikos.com.

Optikron GmbH

#5063

Löbstedter Strasse 70, Jena, Germany, 07749
49 3641 384 970; fax 49 3641 384 978
info@optikron.de; www.optikron.de

Optimax Systems, Inc.

#345



6367 Dean Pky, Ontario, NY, 14519-8939
877/396-7846; fax 585/265-1033
sales@optimaxsi.com; www.optimaxsi.com

Optimax is dedicated to small volume, high quality, and quick delivery of precision optical components. Specializing in aspheres, cylinders, plano-optics and spheres, manufactured to customer-supplied specifications. With more than 100 opticians, we enjoy a good challenge, call us! Contact: Joe Pinto, Sales Engineer, Rick Plympton, Vice President.

OptiPro Systems

#331



6368 Dean Pky, Ontario, NY, 14519-8939
585/265-0160; fax 585/265-9416
sales@optipro.com; www.optipro.com

New Product: OptiPro UltraForm Finishing (UFF) - Aspherical and Conformal 5-axis CNC Polishing machine.

Fabrication products include CNC Optical Machining Centers and Cad/Cam software for 4/5 axis grinding and polishing of spherical, aspherical and conformal optics. Popular low-cost "eSX 150" is quickly becoming the industry standard for manufacturing complex optical components. Manufacturer and distributor of optical / surface metrology equipment- Electronic Spherometers, Zeiss Surface Profilometers, and STIL MicroMeasure non-contact surface measurement systems with resolution to 1 nm. Contact: Lynda Bechtold, Sales, lynda@optipro.com.

OptiSource, LLC

#5036



102 Mountain Park Pl NW Ste D, Albuquerque, NM, 87114
505/792-0277; fax 505/792-0281
sales@optisourcellc.com; www.optisourcellc.com

New Product: OptiSource, LLC is now offering mirrors and windows 3 and 4 inch diameter, BK-7 or UV Fused Silica.

Manufactures crystal quartz wave plates in multiple, zero, dual or low order; also, ultra thin and mica waveplates. Stock and custom optical components include etalons, windows, prisms, lenses, polarizers and rotators. Supplies high damage threshold mirrors, partial reflectors and beamsplitters. Contact: Ralph Temer, Sales Manager, ralph_optisource@msn.com; Sherry Annan, Technical sales, sherry_optisource@msn.com.

OptiSwitch Technology Corp.

#6407

6355 Nancy Ridge Dr, San Diego, CA, 92121
858/452-8787
sales@optiswitch.com; www.optiswitch.com

OptiSwitch develops high performance power semiconductor devices for our customers' mission critical and severe service applications. We have applied our semiconductor expertise to the development of unique pulsed laser diode drivers with emphasis on extreme currents (>1kA) and fast rise-times (<100ns), and recently developed a series of ultra lightweight drivers which deliver 200 amps/300 amps in a 5oz package. OptiSwitch can also design custom drivers engineered to meet your specifications. Contact: Rose Southall, Purchasing Manager and Program Coordinator, sales@optiswitch.com; David Giorgi, President/CEO, sales@optiswitch.com.



EXHIBITION MAP/RESTAURANT GUIDE SPONSOR



Optiwave Systems Inc.

#221

7 Capella Ct, Ottawa, ON, Canada, K2E 7X1
613/224-4700; fax 613/224-4706
info@optiwave.com; www.optiwave.com

New Product: Electronic and optical design in one platform, OptiSPICE.

Optiwave is the leading provider of innovative software design tools for optoelectronic and optical system engineers, hosting an unparalleled suite of advanced simulation software products. Design advanced passive and non-linear photonic components using sophisticated simulation environments. Plan, test, and simulate almost every type of optical link in the physical layer of a broad spectrum of optical networks from LAN, SAN, MAN to BPON, EPON, and GPON. Visit www.optiwave.com. Contact: Richard Rambaran, Director of Sales and Marketing, info@optiwave.com.

Arizona the original optics valley.

Exhibiting Sponsors

Breault Research Organization, Inc.

Tucson, Arizona
Booth #422
www.breault.com

Brush Ceramic Products

Tucson, Arizona
Booth #6012
www.brushwellman.com

Polymicro Technologies, LLC

Phoenix, Arizona
Booth #439
www.polymicro.com

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MLOPTIC Corp.
NP Photonics
Optical Support, Inc.
Pacific Rim Optical, Inc.
Photon Engineering, LLC
Polymicro Technologies, LLC
University of Arizona

Photonics West Exhibitor Directory

Optiworks, Inc.

#5092

Mitsuru Plaza 204, 1-2-4 Azuchi-machi Chuo-ku, Osaka, Japan, 541-0052

81 6 6264 7310; fax 81 6 6264 7310

sales@optiworks.jp; www.optiworks.jp

OptiWorks is an independent optics engineering company from Osaka Japan. OptiWorks will propose and provide optical system design, prototyping and production line to all worldwide customers. From 2008, OptiWorks adds new product line based on optical metrology especially digital interferometer and related optics. OptiWorks started optical polishing service by QED MRF system with his own metrology capability. OptiWorks is organizing a forum on optics engineering and related marketing information. Also OptiWorks will provide optics global supply chain network. Contact: Toshihide Dohi, President.

OPTIX Co.

#6803

Darvenitza Zone Bldg 19 ent 3 office1, Sofia, 1756

359 2 88 43 620; fax 359 2 88 43 624

sales@primoptix.com; www.primoptix.com

Optix specializes in the design and production of optical elements, optomechanical and optoelectronic systems, devices and components with laser, medical imaging, and defense applications. Contact: Janice Hunter, U.S. Sales Manager, janice.hunter@primoptix.com.

Opto Diode Corp.

#6058

 SPIE Corporate Member

750 Mitchell Rd, Newbury Park, CA, 91320

805/499-0335; fax 805/499-8108

sales@optodiode.com; www.optodiode.com

New Product: High Sensitivity, 6mm² Silicon Photodiode Preamp Combo - Large Active Area and Extremely Low Noise.

Opto Diode Corporation supplies the global market with reliable, high quality infrared (IR) LEDs and custom LEDs in the visible range. At their domestic U. S. facility, the company also manufactures high-performance photodetectors, both standard and custom devices. With excellent quality, competitive pricing and short lead times, Opto Diode serves industries such as medical, biotechnology, test and measurement, entertainment, military/defense, industrial, aerospace, automotive, R&D and more. Contact: Russell Dahl, Director, Sales and Marketing, russdahl@optodiode.com.

OptoElectronic Components (OEC)

#6067

 SPIE Corporate Member

28 Des Lilas, Kirkland, QC, Canada, H9J 4A7

514/694-0336; fax 514/694-8535

sales@optoecomponents.com; www.optoecomponents.com

New Product: Photon Detector Carrier operates any Silicon Avalanche Photodiodes in Geiger mode.

Supplier of single photon counting detector modules with 30ps timing resolution from Micro Photon Devices, TCSPC electronics and software from PicoQuant, EM-CCD and intensified CCD with near photon counting capabilities from Photonic Science and Photon Counting Energy Discriminating X-Ray detectors from Gamma Medica-Ideas. Contact: Nick Bertone, nick.bertone@optoecomponents.com.

Optoelectronic Industry and Technology Development (OITDA)

#5083

1-20-10 Sekiguchi, Bunkyo-ku, Tokyo, Japan, 112-0014

81 3 5225 6431; fax 81 3 5225 6435

interopt@oitda.or.jp; www.oitda.or.jp

The Optoelectronic Industry and Technology Development Association(OITDA) was established in July 1980 in order to promote development of the Optoelectronic industry and Optoelectronic technology, one of today's leading-edge technologies. InterOpto is the only comprehensive optoelectronics show in Japan. InterOpto 2009 will be held at Makuhari Messe, September 9-11, 2009. Contact: Shinyu Kawakubo, Deputy General Manager, shin@oitda.or.jp.

OptoIndex for Photonics

#S6

Papier Muehlenweg 74, Ratingen, Germany, 40882

49 2102 1678 0; fax 49 2102 1678 28

info@opto-index.de; www.opto-index.de

The proliferation of photonics in recent years creates the imperative need for an index. This work of reference - OptoIndex - offers a comprehensive data source for companies and products in the sector. Who has the best solution to my problem? Where can I find a cost-effective product developments shortcut? This catalogue and website www.opto-index.de/ot will help you to find the answers. Updated annually, OptoIndex 2009 is published in English only, the language of international business. Contact: Constanze Classen, Media Consultant, constanze.classen@opto-index.de.

Optometrics Corp.

#327

 SPIE Corporate Member

8 Nemco Way, Ayer, MA, 01432

978/722-1700; fax 978/772-0017

sales@optometrics.com; www.optometrics.com

New Product: Hard-coat interference filters -custom designs-notch, narrow band pass and Laser Line products.

We are a world-class manufacturer of optical components and instruments for OEMs and distributors world-wide. Our wavelength selection solutions to the Photonics Industry include: original and replicated ruled/holographic gratings for UV-VIS-NIR spectroscopy; grazing incidence gratings, holographic gratings, transmission grating beamsplitters, 50/50 beamsplitters, NUV-VIS-IR interference filters, laser line filters and monochrometers. Expanded assembly services. We are a Dynasil family company. Contact: James Falls, Director of Marketing and Sales, jfalls@optometrics.com; Laura Lunardo, COO, lauras@optometrics.com.

Optonetic LLC

#642

 SPIE Corporate Member

6901 TPC Dr Ste 450, Orlando, FL, 32822

407/857-4410; fax 407/857-4409

info@optonetic.com; www.optonetic.com

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Opto-Precision Pte Ltd.

#6389

11 Toh Guan Rd E #02-01, Singapore, 608603
65 6565 1110; fax 65 6565 0013
keigo.tang@opto.com.sg; www.opto.com.sg

New Product: Build and assembly of Vision/Camera systems, IR Cut Filters, T<0.0001 % @ 680 to 1100nm.

Opto-Precision Pte Ltd is one of the leading providers of optical sub assembly devices, optical component and thin film coating services provider in Asia. We have successfully manufactured many optical thin film components for our worldwide customers. Our Products like Optical Density Filters, narrow bandpass filters, heat transmission/rejection filters, lasers mirrors, Optical sub-assemblies, etc. Contact us for stock or custom Optics. Employees 50, Facility area 15K sq ft. Contact: Keigo Tang, Vice President, keigo.tang@opto.com.sg; Harry Ong, Senior Business Development Engineer, harry.ong@opto.com.sg.

OptoSigma Corp.

#1035

SPIE Corporate Member

2001 Deere Ave, Santa Ana, CA, 92705
949/851-5881; fax 949/851-5058
sales@optosigma.com; www.optosigma.com

New Product: OptoSigma specialized custom optical coatings is one of seven global manufacturing facilities.

OptoSigma Corporation manufactures custom optical coatings for catalog and custom OEM manufactured optics. OptoSigma offers engineering support for optics and coatings, mechanics and all applications. From prototype to production; OEM custom design support and fabrication at highly competitive pricing. Fast quote and delivery. Contact: Technical Sales, Sales and Support, sales@optosigma.com; Andrew Clawson, Sr. Optics Engineer, Coating Manager, Clayton Summers, Sr. Mechanical Engineer, clayton@optosigma.com.

OptoTech Optikmaschinen GmbH

#235

PO Box 131, East Greenville, PA, 18041
215/679-2091; fax 215/679-2013
info@optotech.us; www.optotech.de

Designs, develops and manufactures machinery and new process technology for precision optics and ophthalmics. CNC and conventional high-speed generators/polishers (1 to 800 mm diam), 5-axis processing centers, centering/edging, plano/prism, rod, cylinder, aspheric machines, interferometers, autocollimators and software. In-house tool design and manufacture. Consumables, parts, repairs and maintenance contracts. Contact: Heidi Hofke, General Manager, h.hofke@optotech.us.

Optowell Co., Ltd.

#6306

308 SPRC, 664-14 Deokjin-dong 1-ga Deokjin-gu, Jeonju-si, South Korea, 561-756
82 63 214 1186; fax 82 63 214 1137
sales@optowell.com; www.optowell.com



- ✓ **Highest damage thresholds**
- ✓ **Lowest wave-front errors**
- ✓ **The data to prove it**



For more information on our high-energy IBS coatings and patent-pending epoxy-free bonding, visit us at www.precisionphotonics.com!

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Booth #1214**



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303-444-9948

Photonics West Exhibitor Directory

Optronic Laboratories, Inc.

#714



A Gooch and Housego PLC, 4632 36th St, Orlando, FL, 32811
407/422-3171; fax 407/648-5412
info@olinet.com; www.olinet.com

New Product: OL 770-ADMS Automated Display Measurement System.

Optronic Laboratories designs and manufactures industrial and research-grade light measurement instrumentation for science, industry and the military. For almost 40 years, clients have been guaranteed the industry's highest quality modular systems, standards and accessories that provide consistent, traceable, and precise measurements throughout the long life of the instrumentation. Optronic Laboratories specializes in Scanning Spectroradiometers, Multichannel Spectroradiometers, LED Test and Measurement Systems, Radiometer/Photometers, Integrating Sphere Systems, Traceable Standards, Calibration and Measurement Services. Contact: Alex Fong, VP of Sales and Marketing afong@olinet.com; Chris Rapp, Sr. Applications Engineer chris@olinet.com.

Optronics Co., Ltd. (The)

#2026

5-5 Shin Ogawamachi, Shinjuku-ku Tokyo, Japan, 162-0814
81 3 3269 3550; fax 81 3 5229 7253
intl@optronics.co.jp; www.optronics.co.jp

Optronics, the leading photonics magazine in Japan, provides the latest news and information on the photonics industry, including optics, lasers, fiber optics, imaging and optoelectronics. Visit our booth for further information about the journal. The information about LENS EXPO and LASER EXPO is also available. Contact: Sakae Shibasaki.

Orb Optronix, Inc.

#6601

1003 7th Ave Ste B, Kirkland, WA, 98033
425/605-8500; fax 801/912-2645
info@orboptronix.com; www.orboptronix.com

New Product: Orb Optronix is proud to announce our new line of LED Characterization Systems and PWM LED Drivers.

Orb Optronix is dedicated to providing companies with world-class engineering services and products for the illumination industries. As our name conveys, Orb Optronix delivers holistic solutions to interdisciplinary optical and illumination product development challenges ranging from component and system design services to product test and measurement solutions. Contact: Rob Leonard, Director of Sales and Marketing, leonard@OrbOptronix.com; Dave Jenkins, President, jenkins@OrbOptronix.com.

Orbits Lightwave, Inc.

#6378



101 Waverly Dr, Pasadena, CA, 91105
626/795-0667; fax 626/546-7946
sales@orbitlightwave.com; www.orbitlightwave.com

New Product: Multi-Channel Rack offers all the advantages of our module laser in a versatile laser system.

Orbits Lightwave offers ultra-stable, low noise fiber lasers in the 1060nm and 1550nm wavelength range for Sensing, LIDAR, Microwave Photonics and Coherent Communication applications. Contact: Duncan McMillan, Sales Application Engineer, dmcmillan@orbitlightwave.com; Dr. Yaakov Shevy, dshevy@orbitlightwave.com.

Osaki America, Inc.

#6709

950 Tower Ln Ste 780, Foster City, CA, 94404
650/357-7700; fax 650/357-7900
info@osaki.com; www.osaki.com

Osaki designs and provides high performance optical components and sub-systems. Our optical networking solution offers the latest innovative system to the requirements from us. You can see some demonstrations on TODC+BER-Testing for Optical Network Sub-Systems, and proposal of Wafer-Testing Equipments for Semiconductor's Field. at our booth. Osaki Electric Co., Ltd. is a leading provider in Tokyo-Japan.



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OSI Optoelectronics, Inc.

#214

12525 Chadron Ave, Hawthorne, CA, 90250-4881
310/978-0516; fax 310/644-1727
sales@osioptoelectronics.com; www.osioptoelectronics.com

OSRAM Opto Semiconductors

#1833



2650 San Tomas Expressway Ste 200, Santa Clara, CA, 95051
888/446-7726; fax 408/844-9350
www.osram-os.com

OSRAM Opto Semiconductors, a leading supplier and manufacturer of solid-state optoelectronic products including HPL diodes, infrared components and LEDs, will exhibit their latest laser diode products and infrared components. Join us in booth #1833 and learn about our SMT laser technology, laser bars, pulsed laser diodes and various IR product offerings. For more information visit www.osram-os.com. Contact: Rolf Kojima, Product Marketing Manager, rolf.kojima@osram-os.com; Karl Leahy, IR/HPL Business Unit Manager, karl.leahy@osram-os.com.

OXIDE/NIMS

#5104

1747-1 Mukawa Hokuto, Yamanashi, Japan, 408-0302
81 551 26 0022; fax 81 551 26 0033
sales@opt-oxide.com; www.opt-oxide.com

OXXIUS

#6299

4 Rue de Broglie, Lannion, France, F-22300
33 2 96 48 70 28; fax 33 2 96 48 21 90
sales@oxxius.com; www.oxxius.com

New Product: Market leading power levels, single-frequency DPSS lasers at 473, 532, 561 nm.

Oxxius manufactures ultra compact, extremely stable Diode Pumped Solid-State and Diode Laser modules in the visible and ultraviolet wavelength range (DPSS from 20 to 300 mW at 561, 532, 473 nm and diode modules from 7 to 100 mW at 488, 445, 405 and 375nm). Patented AMR technology assures stable, noise-free single frequency operation, enabling superior performance in biomedical, analytical, interferometric or sensing applications. Contact: Nicolas Feat, Product Line Manager, nfeat@oxxius.com; Willy Brochard, Sales Engineer, wbrochard@oxxius.com.



Free Popcorn

Popcorn carts will be located in the back of Exhibition Hall 3 and South Hall 1 and will be open from 11:00 am to 4:00 pm, Tuesday through Thursday.

OZ Optics Ltd.

SPIE Corporate Member

West Carleton Industrial Park, 219 Westbrook Rd, Carp, ON, Canada, K0A 1L0
613/831-0981; fax 613/836-5089
sales@ozoptics.com; www.ozoptics.com

New Product: Up to 50 Watt 1064 nm High Power Isolators for Fiber Laser Applications.

High Power Isolator/Patchcord, Shutter/SleeveThru Adaptor Safety Interlock, ER Meter, PM Patchcord/Connector/Splitter, Polarization Rotator/Controller/Analyzer, Laser Diode Source, Polarizing Splitter/Combiner, Laser to Fiber Delivery System, Laser/Photo Diode to Fiber Coupler, Faraday Mirror/Rotator, Circulators, RGB Combiner, Vacuum Feedthrough, V Groove, Tapered Fiber, Polarizer, PM/SM/MM Fused Fiber Coupler, Optical Delay Line/Tap/Power Monitor, Hermetically Sealable Patchcord, Fixed/Tunable Filter, Sensor. Contact: Omur Sezerman, President and Chief Executive Officer.

P&P Optica

330 Gage Ave Ste 11, Kitchener, ON, Canada, N2M 5C6
519/576-0007; fax 519/576-0885
optica@ppo.ca; www.ppo.ca

New Product: High resolution, non-scanning UV Raman Spectrometers. 300nm range, 12mm large imaging slits.

P&P Optica's high performance, non-scanning, UV, VIS, and NIR spectrometers are built to increase useful optical signal and eliminate noise. Our CCD spectrometers include: high performance optical, multichannel, imaging and Raman spectrometers. Our models use volume phase holographic - VPH gratings which provide average absolute diffraction efficiency above 80%. Our clients use these low aberration spectrometers in fluorescence spectroscopy, Raman, LIBS, OCT and other biomedical applications. Contact: Olga Pawluczyk, President, optica@ppo.ca; Romuald Pawluczyk, Chief Scientist, romek@ppo.ca.

Pacific Coast Optics

SPIE Corporate Member

1361 E Edinger Ave, Santa Ana, CA, 92705
714/835-1888; fax 714/835-6510
sales@pcoptics.com; www.pcoptics.com

New Product: Introducing CNC Machining, 3D CAD designs and Seamless outer diameter coatings up to 6" in diameter.

Pacific Coast Optics a new division of Progressive Technology Inc. manufactures precision optical components and assemblies in spherical and cylindrical design from UV to IR. Our size capabilities range from .125" to 24" diameter and up to 19" x 21: cylinder optics in production and prototype quantities. Our coatings consist of single or multilayer, broadband and AR V-Coat utilizing enhanced aluminum, silver, gold and ITO coatings. With 40 years of history we also stock over 1100 test plates. Contact: Steven DiAnda, Manager, skdianda@pcoptics.com; Shannon Rogers, President, srogers@pcoptics.com.

Pacific Rim Optical, Inc.

PO Box 532, Sisters, OR, 97759
541/549-0770; fax 541/549-0769
www.pacificrimoptical.com

Designs and manufactures optical components and assemblies. Polishing, coating and assembly operations performed in-house. Capabilities include lenses, prisms, complex imaging lens systems and prism assemblies. Low-to high-volume production. Offices in the U.S. and China provide technical and program management services, as well as Quality Assurance. ISO certified. Contact: Eric Ye, General Manager, eric@pacificrimoptical.com; Forrest Babcock, Optical Engineer, forrestb@krugeroptical.com.

#1509

Pacific Silicon Sensor Inc.

5700 Corsa Ave Unit 105, Westlake Village, CA, 91362
818/706-3400; fax 818/889-7053
sales@pacific-sensor.com; www.pacific-sensor.com

Paradigm Lasers, Inc.

SPIE Corporate Member

3718 S Union Ct, Spokane Valley, WA, 99206
509/232-2040; fax 509/232-1947
www.paradigmlasers.com

New Product: The o-TOOL optical multimeter simplifies alignment, locates beam, displays polarization and profile.

Designer/Manufacturer of diode-pumped solid-state laser solutions, from pump modules and electronics to fully integrated systems incorporating patented radial diode array technology. Modular designs with scalable power and high brightness certain to meet your laser requirements. Additional products include the o-TOOL, an optical multimeter with attachments to symplify alignment, locate invisible beams, display polarization and display beam profile. Contact: Tim Irwin, President, timi@paradigmlasers.com; Judy Irwin, Vice President, judi@paradigmlasers.com.

#5088

Paul Pleiger Maschinenfabrik GmbH and Co. KG

Division Laseroptik, Im Hammertal 51, Witten, Germany, 58456
49 2324 398406; fax 49 2324 398402
contact@pleiger-laseroptik.de; www.pleiger-laseroptik.de

New Product: Optics and coatings for high power CO2 lasers and IR applications.

The laser-optics division of Paul Pleiger Maschinenfabrik GmbH and Co. KG in Witten (Germany), supplies ready-to-use optical components for CO₂ lasers and IR applications throughout the world and coats customer's substrates for the complete near and far infrared ranges. Contact: Dr. R. Toelle, Head of technical department, toelle@pleiger-laseroptik.de; Dr. M. Horn, Head of R&D, horn@pleiger-laseroptik.de.

#1801

Pavilion Integration Corp.

SPIE Corporate Member

2380 Qume Dr Ste F, San Jose, CA, 95131
408/453-8801; fax 408/453-8802
sales@pavilionintegration.com; www.pavilionintegration.com

PIC manufactures CW solid-state lasers and laser modules for OEM instrumentation applications. Our products cover the wavelength range from UV to IR and are available as free space and fiber delivered models. Our products feature a small and efficient package to enable a compact and stable instrument design. The lasers exhibit very good stability under all conditions and when modulated. By combining multiple lasers into one laser module we deliver photons the way our customers need them. Contact: Thomas Kraft, thomas.kraft@pavilionintegration.com.

#5064

PD-LD, Inc.

30-B Pennington-Hopewell Rd, Pennington, NJ, 08534
609/564-7900; fax 609/564-7901
info@pd-ld.com; www.pdld.com

PD-LD, Inc., a photonic packaging company, in Pennington, New Jersey is a United States manufacturer and assembler of pigtailed/receptacle mounted fiber coupled laser diodes, LED's, Detectors, high power pulsed lasers and bi-directional devices for the optical communications, test equipment and medical industries. PD-LD provides custom Volume Bragg Grating® (VBG®) elements and VBG stabilized lasers for Raman Spectroscopy, High Power Lasers and Displays. For more information on PD-LD, visit www.pdld.com. Contact: Tom DeBerardine, Director of Sales, tom@pd-ld.com; Calvin Hsieh, Sales Manager West Coast, chsieh@pd-ld.com.

#6296

#6072

Photonics West Exhibitor Directory

PerkinElmer Optoelectronics

#1540

35 Congress St, Salem, MA, 01970
978/224-4100; fax 978/745-0894
www.perkinelmer.com

PerkinElmer is a global technology leader providing applications based optoelectronic solutions to leading OEMs for enhancing safety and security, conserving energy, contributing to a better environment, and improving human health. Our core expertise is silicon and infrared detection and we can provide a broad range of optical sensors and detectors for applications ranging from motion and presence sensing to climate control, gas sensing, molecular imaging and remote temperature sensing.

PerkinElmer, Inc.

#1538

710 Bridgeport Ave, Shelton, CT, 06484
800/762-4000; fax 203/944-4914
productinfo@perkinelmer.com; www.perkinelmer.com

PerkinElmer helps scientists through application-focused measurement solutions: materials characterization, environmental, forensics, pharmaceutical, food / beverages, and chemical / hydrocarbon processing. PerkinElmer's EcoAnalytix™ initiative addresses the global imperatives of food safety, water quality and biofuels development. EcoAnalytix™ goes beyond analytical instrumentation to include training, SOPs, regulatory leadership, community outreach and industry collaboration. Contact: productinfo@perkinelmer.com.

PFG Optics

#144



733 Bienville Blvd, Ocean Springs, MS, 39564-2842
228/875-0165; fax 228/875-9354
sales@pfgoptics.com; www.pfgoptics.com

PFG Optics is an ISO 9001:2000 certified manufacturer of precision optics, coatings and assemblies from UV to Near-IR wavelengths. Our specialties include high index, high included angle and truncated lenses using the latest CNC milling, shaping, polishing with MRF finishing and edging technology. Double sided and planetary polishing for windows, wedges, filters and prisms. Custom vacuum-deposited and Ion-assisted coatings. Assemblies include Telecentric, Eyepiece, Scan and Imaging Lenses. Contact: Colin, VP Sales, cody@pfgoptics.com; Barbara Dudiak, Sales Coordinator, Sales@pfgoptics.com.

PhaseView

#6247

7 rue de la Croix Martre, Palaiseau, France, 91120
33 1 69 32 12 78; fax 33 1 69 20 60 41
contact@phaseview.net; www.phaseview.net

New Product: Digital Wavefront Sensors provide the highest resolution for wavefront and laser beam analyses.

PhaseView manufactures and markets optical sensors resulting from its patented Digital Wavefront technology. These optical devices designed for 3D surface metrology and wavefront sensing applications, available in turn-key and integrable solutions, targets niche and volume markets in industry quality control, medical, defense and security. Contact: Gael Launay, Marketing and Sales Manager, contact@phaseview.net.

Plan to Attend

FREE Exhibitor Product Demonstrations

Refer to pages 8–16 for complete time, schedules, and locations.

PHASICS SA

#1611

Xtec Baitment 404, Campus de l'Ecole Polytechnique Route de Saclay, Palaiseau, France, 91120
33 1 69 33 89 99; fax 33 1 69 33 89 88
sales@phasics.fr; www.phasics.fr

PHASICS manufactures wave front sensors based on the innovative technology: 4-wave lateral shearing interferometry. The very high resolution (up to 400x300 simultaneous measurement points) offers the optimal features for laser characterization and optical metrology. PHASICS also proposes adaptive optics loop for laser spot optimization and beam shaping. Contact: Raphael Serra, Sales Engineer, contact@phasics.fr; Marie-Begona Lebrun, General Manager, contact@phasics.fr.

Philips Technologie GmbH U-L-M Photonics

#1827

9 River Rd, Hudson, NH, 03051
603/821-7040; fax 603/821-7041
www.lasercomponents.com

New Product: Over 10 Million VCSELs Delivered for Optical Tracking Systems.

Leading edge manufacturer of VCSELs, Photodiodes and high power VCSELs for Datacom, Automotive, Sensing. Single-mode VCSELs 760nm-980nm available as chips, arrays, TO packages and fiber coupled. TEC and thermistor allows 2nm tuning. VCSELs certified for reliability (MTTF>10E7h) and 85% RH/85C(>3000h) without hermetic sealing. Sales/Support in North America by Laser Components IG, Inc. Contact: Gary Hayes, General Manager, hayes@laser-components.com; Paul Buettner, Sales Engineer, buettner@laser-components.com.

Phoenix B.V.

#6270



PO Box 545, Enschede, The Netherlands, 7500 AM
31 53 4836460; fax 31 53 4337415
info@phoenixbv.com; www.phoenixbv.com

Phoenix is a supplier of professional software tools for the micro- and nano technology industry. Typical products include software for mask lay-out and process flow simulation (MaskEngineer, CleWin and FlowDesigner), Software for integrated optics simulations (OptoDesigner, FieldDesigner and ASPIC) and the leading manufacturing execution systems dedicated to the industry: The Living Database. Contact: Salar Ahmed, Marketing and sales, salar.ahmed@phoenixbv.com.

Phoenix Infrared

#5123

3 Foundry St, Lowell, MA, 01852
978/458-8328; fax 978/458-8414
sales@phoenixinfrared.com; www.phoenixinfrared.com

Phosstech Photonics Ltd.

#6504



#138 Wusi Rd, Fuzhou Fujian, China, 350001
86 591 8784 6955; fax 86 591 8785 6157
frank@phosstech.com; www.phosstech.com

New Product: High precision optical component: MgF₂ and CaF₂, Sapphire, high precision corner cube retroreflectors.

Phosstech Photonics is a global supplier and manufacturer of optical components with high power coatings for laser applications and nonlinear crystals for applications in UV, VIS, IR ranges. Phosstech manufactures Windows, Mirror, Lens, Prisms, Corner cube, Waveplate, PBS, BBO, KTP, Nd:YVO₄, Nd:YAG, etc. Phosstech is ISO9001 certified and commit with high quality, competitive price, on-time delivery. Contact: Contact: Frank Lin, Marketing Manager, frank@phosstech.com; Sanders Lin, Sales Manager, sanders@phosstech.com.



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NEWSLETTER**

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Photonics West Exhibitor Directory

Photek, Ltd.

#334

26 Castleham Rd, St Leonards-on-Sea, E Sussex, United Kingdom, TN38 9NS
44 1424 850555
sales@photek.com; www.photek.co.uk

New Product: Diamond PMT, ultra fast PMT with 55 ps rise time and 90 ps FWHM.

Photek is a specialist manufacturer of vacuum based tubes and camera systems for photon detection. Our product range includes; camera systems, image intensifiers, ultra fast PMT's, streak tubes plus a range of associated electronics. We are experts in large area and ultra-high speed imaging and advanced photon counting camera systems. Contact: Ian Cox, Sales and Marketing Manager, ian.cox@photek.co.uk; Mike Pavia, US Sales, pavia@sydorinstruments.com.

Photodigm, Inc.

#6283

 SPIE Corporate Member

1155 E Collins Blvd Ste 200, Richardson, TX, 75081
972/235-7584; fax 972/235-1609
info@photodigm.com; www.photodigm.com

Photon Design

#5030

 SPIE Corporate Member

34 Leopold St, Oxford, United Kingdom, OX4 1TW
44 1865 324990; fax 44 1865 324 991
info@photond.com; www.photond.com

New Product: PICWave - photonic IC circuit simulator for modeling both passive and active components.

Photon Design, founded in 1992, provides a wide range of photonics modeling software for integrated and fibre-based component design. Products include FIMMPROP - our revolutionary bi-directional optical propagation tool, FIMMWAVE - our famous mode solver, PICWave - an innovative new photonic IC circuit simulator, CrystalWave - a complete photonic crystal simulator, OmniSim - a general purpose 3D FDTD simulator and CLADISS-2D - a powerful laser-diode/TWA model.

Photon Engineering, LLC

#1932

 SPIE Corporate Member

440 S Williams Blvd Ste 106, Tucson, AZ, 85711
520/733-9557; fax 520/733-9609
info@photonengr.com; www.photonengr.com

New Product: FRED Optimum's built-in hybrid optimizer creates unparalleled designs while reducing prototype time.

Photon Engineering, LLC is a consulting and software development firm based in Tucson, Arizona. Photon Engineering sells FRED, the premier proven optical engineering software to solve today's leading edge illumination and optical engineering problems. FRED is ideal for simulating optical systems with special emphasis on ghosting, stray light and illumination analysis. FRED uses a 3D virtual prototyping CAD environment to model virtually any type of optical/illumination system. Contact: Carolyn Johnson, Sales Manager, sales@photonengr.com.

Photon etc.

#1700

Pavillon JA Bombardier, 5155 Decelles Ave, Montreal, QC, Canada, H3T 2B1
514/385-9555; fax 514/385-9555
sales@photonetc.com; www.photonetc.com

New Product: Volume Bragg Grating based tunable notch filter with ultra narrow bandwidth in the visible and NIR.

Photon etc. develops and manufactures optical filters for Raman applications as well as spectral analysis and calibration instruments. Our new technology provides sub-nm bandwidths for fixed and tunable wavelength configurations from UV to NIR. Our main products include Hyperspectral Imager, Tunable Laser Source, Laser Line Tunable Filter, Fixed and Tunable Notch Filters, and custom optical systems for various applications. Suitable for bio-medical imaging, nanotechnology, astronomy, and more. Contact: Bernard-Alexandre Gaulin, Sales/Marketing Executive, sales@photonetc.com; Sébastien Blais-Ouellette, President, sbo@photonetc.com.

Photon Gear, Inc.

#6097

245 David Pkwy, Ontario, NY, 14519
585/265-3360; fax 585/265-3364
sales@photongear.com; www.photongear.com

Photon Gear specializes in the design, assembly and characterization of high-precision optical systems. Custom lens assemblies are verified with interferometric test capabilities from 266 nm to 1600 nm. Supported application areas include semiconductor inspection and processing, military, metrology, biomedical, laser scanning and polymer optics. We also provide contract optical engineering and optical design services as well as systems engineering support for custom software and optical hardware. Contact: Gary Blough, President, blough@photongear.com.

Photon Inc.

#116

6878 Santa Teresa Blvd, San Jose, CA, 95119-1205
408/226-1000; fax 408/226-1025
beam@photon-inc.com; www.photon-inc.com

Photon beam profilers characterize the performance of lasers and optics in both manufacturing and R&D. Photon equipment measures the beam profile, beam size, beam position, M², and other beam parameters. People come to Photon because they trust us to help them with their challenges with lasers and optical systems. Contact: Derrick Peterman, Sales Engineer, dpeterman@photon-inc.com; Kelly Child, Sales Engineer, kchild@photon-inc.com.

Photon Systems, Inc.

#6908

1512 Industrial Park St, Covina, CA, 91722
626/967-6431; fax 626/967-5813
r.reid@photonsystems.com; www.photonsystems.com

New Product: Deep UV Lasers at 224nm and 248nm, narrow line width, low power consumption, rugged and reliable.

Photon Systems develops and manufactures Deep UV sources and Instruments. Deep UV laser, Deep UV LEDs and plug and play detection systems combined into ultra sensitive Bio, Chem and Explosive detection systems. Contact: Ray Reid, President, R.reid@photonsystems.com; Dr. William Hug, W.Hug@photonsystems.com.

Photonic Cleaning Technologies

#3024

PO Box 435, Platteville, WI, 53818
608/467-5396; fax 608/467-5397
sales@photoniccleaning.com; www.photoniccleaning.com
First Contact™ Polymer products cleaning and protection in a bottle, including new Dissipative Formula, provide nano-cleaning and mega-protection. Clean and protect electro-optics, imaging systems, first surface mirrors, crystals, phase masks, diffraction gratings, more. Easy to use, environmentally friendly, safe and effective. Apply by spraying, dipping, or brushing on. Available worldwide from authorized distributors, see the Independent Distributors page on www.PhotonicCleaning.com. Contact: sales@PhotonicCleaning.com.

Photonic Products Ltd.

#1621

Sparrow Ln, Hatfield Broad Oak Herts,
United Kingdom, CM22 7BA
44 1279 717170; fax 44 1279 717171
sales@photonic-products.com; www.photonic-products.com

New Product: Photonic Products' tough industrial laser modules are built to satisfy rigorous industrial demands.

Photonic Products is an ISO9001:2000 certified UK manufacturer of laser modules, laser diode assemblies, electro-optical subassemblies and precision machined components which deliver performance and manufacturing efficiencies to OEM companies in biomedical, medical and scientific markets. Photonic Products is an authorized distributor of premium quality laser diodes and optical lenses from Sanyo, Sony, Opnext and Panasonic. Photonic Products is a StockerYale (NASDAQ: STKR) company. Contact: David Stephen, VP Sales, salesusa@photonic-products.com; Paul Bonsi, Technical Sales Manager, USA and Canada, salesusa@photonic-products.com.

Photonics Cluster Netherlands

#6270

Prins Bernhardstraat 64, Koudekerk a/d Rijn,
The Netherlands, 2396 GN
31 6 28615354
info@photonicscluster-nl.org; www.photonicscluster-nl.org
Photonics Cluster Netherlands (PCN) is the Dutch platform in the field of Photonics. Founded in May 2006, PCN has a growing network with other international Photonics Clusters and initiatives which play an important role in promoting Photonics as an enabling technology. PCN is the gatekeeper that directs foreign companies to partners (companies and universities) in Photonics in the Netherlands. Contact: Guus Taminiau, Secretary, taminiau@photonicscluster-nl.org; Bart Snijders, Chairman, info@photonicscluster-nl.org.

Photonics Industries International, Inc. #1721



390 Central Ave, Bohemia, NY, 11716-3147
631/218-2240; fax 631/218-2275
info@photonix.com; www.photonix.com

New Product: RG Series diode pumped picosecond laser produces >3mJ per pulse @ 1kHz for millimachining/processing.

Photonics Industries International, Inc. develops and manufactures a wide range of DPSS laser systems for industrial and scientific applications. Conventional nanosecond, picosecond, modelocked and regenerative amplified TEM00 lasers are available in Nd:YAG, Nd:YLF and Nd:YVO4. Output powers range from 100mW-150W at 1064nm, 100mW-100W at 532nm, 50mW-40W at 355nm and 5mW-10W at 266nm; pump lasers up to 60mJ at 1kHz at 527nm; Eye-safe, OPO, Ti:Sapphire tunable lasers are also available. Contact: Joyce Kilmer, Director of Marketing, JKilmer@photonix.com; Matt Corrello, Director of Sales, MCorrello@photonix.com.

Photonics Industry and Technology Development Association (PIDA) #5129

5th Fl, 9 Roosevelt Rd Sec 2, Taipei, Taiwan, 100
886 2 2351 4026; fax 886 2 2396 8513
www.pida.org.tw

New Product: Exhibition of Photonics Festival in Taiwan 2009; OLIE.

PIDA is a national organization of the photonics trade and a social entity with legal person status. PIDA serves as the assistant and consultant to the enterprises and the government departments responsible for the photonics industry research and promotion. "Photonics Festival in Taiwan" exhibitions and conferences are the very important annual events hosted by PIDA. More information at www.optotaiwan.com. Contact: Pamela Hsiao, Projection Manager, pamelah@mail.pida.org.tw; Ryan Chung, Directory, ryan@mail.pida.org.tw.



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#538

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413/499-0514; fax 413/442-3180
photonics@laurin.com; www.photonics.com

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Photonics Tech Briefs

#832

1466 Broadway Ste 910, New York, NY, 10036
212/490-3999; fax 212/986-7864
joe@abpi.net; www.techbriefs.com

Design engineers: Photonics Tech Briefs (PTB) is the only major photonics publication written for you. Published with NASA Tech Briefs magazine to over 100,000 buyers and decision-makers, PTB reports on innovations in optics, fiber optics, lasers, and imaging that forward-thinking engineers apply in new product development. Sign up for a free print or digital subscription. Contact: Joe Pramberger, Publisher, joe@techbriefs.com; Bruce Bennett, Editor, bruce@techbriefs.com.

PhotonicsOnline.com

#S2, 6091

2591 Wexford-Bayne Rd Bldg 2 Ste 305, Sewickley, PA, 15143
724/371-8414; fax 724/940-7707
www.photonicsonline.com

PhotonicsOnline.com is the industry's leading online web community serving the information needs of the optical engineering community. We are a one-stop-site covering news, technical articles, and product updates on lasers, photonic equipment, and optical components and systems. Visit www.photonicsonline.com and join our community to discover where the future of photonics is found.



Free Popcorn

Popcorn carts will be located in the back of Exhibition Hall 3 and South Hall 1 and will be open from 11:00 am to 4:00 pm, Tuesday through Thursday.

Photonics West Exhibitor Directory

PHOTONIS

1000 New Holland Ave, Lancaster, PA, 17601-5688
717/295-6888; fax 717/295-6096
sales@usa.photonis.com; www.photonis.com

New Product: Intensified Camera Units - next generation enhanced digital night vision and low light level detection.

PHOTONIS is a leader in development and manufacturing of photo sensor technology. Products include Image Intensifier Tubes, Hybrid Photodetectors and Intensified Camera Units for night vision and low-light level imaging for industrial and scientific systems; Photomultiplier Tubes for medical imaging, homeland security, high energy physics and life sciences; E-O Detectors include Electron Multipliers for analytical, scientific and space; Power Tubes for high-energy research, industrial heating and communications. Contact: Lynn Bergeron, Customer Service, l.bergeron@usa.photonis.com; Pat Tryba, Customer Service, p.tryba@usa.photonis.com.

Photop Technologies, Inc.



260 N Wolfe Rd, Sunnyvale, CA, 94085
408/732-1603; fax 408/732-1696
contact@photoptech.com; www.photoptech.com

New Product: Green Laser Core (GLC), GLC, which combines Nd:YVO4 and KTP.

Established in 2003 through a merger of four companies, each a leader in its existing product field of Fiber Optics, Optics, Laser, and Photonic Crystal Materials, Photop is a leading photonics designer and integrated manufacturing company on Fiber Optics, Precision Optics, Projection and Display Optics, DPSS Laser, Crystal Materials, and other Photonics Products. Contact: Mr. Henry Yu, Senior Vice President, henry.yu@photoptech.com; Mr. Johnny Zhong, Director of Sales and Marketing, johnny.zhong@photoptech.com.

Photo-Sonics, Inc./IMC

820 S Mariposa St, Burbank, CA, 91506
818/842-2141; fax 818/842-2610
mail@photosonics.com; www.photosonics.com

Photron



9520 Padgett St Ste 110, San Diego, CA, 92126-4446
858/684-3555; fax 858/684-3558
haruko@photron.com; www.photron.com

New Product: Fastcam SA3 high speed camera: Mega pixel resolution to 1000 frames per second and 1080i to 2000 fps.

Photron, founded in 1974, is a world supplier of photo-instrumentation, high speed image processing systems and photo optical technologies for the automotive, industrial manufacturing, film and television, medical and military markets. Products include standard and custom high resolution, high-speed cameras, software, and systems for R&D, commercial and defense-related motion image analysis applications. Contact: Andrew Bridges, Director, Sales and Marketing, abridges@photron.com.

Physics Today

One Physics Ellipse, College Park, MD, 20740-3843
301/209-3055; fax 301/209-0842
www.aip.org

Physics Today reaches 280,000 scientists and engineers in print and in www.physicstoday.org, weekly e-mail alerts and RSS feeds. Physics is where photonics started, and physicists will point to the future of photonics. No other publication is read in research labs more than *Physics Today*.

#318

PI (Physik Instrumente) L.P. Piezo Nano Positioning



16 Albert St, Auburn, MA, 01501
508/832-3456; fax 508/832-0506
info@pi-usa.us; http://www.pi-usa.us/index.htm?09SPIE_PW

New Product: XYZ Piezo Microscopy Stage, Ultra-Precision Piezomotor; 8mm Micromotor; Fast Steering Mirror.

PI: ISO 9001 certified, global leader in nanopositioning, ultra-precision motion control and piezo stage positioning systems for OEM and research. Products: Piezo Stages; Nanopositioning Systems; Six-Axis Hexapod Alignment Systems, Piezo Stages for Microscopy; Lens Positioners; Fast Steering Mirrors / Active Optics; Multilayer Piezo Actuators; Fast Piezo Linear Motors, Piezo Drivers and Digital Controllers; Micropositioning Actuators, Stages and Motion Controllers; MicroMotion Robots for Automated 3D to 6D Photonics Alignment; 30+Years Experience. Contact: Jim Gareau, VP Sales and Business Development, jimg@pi-usa.us; David Steinberg, Director of Sales - Western North America Region, davids@pi-usa.us.

#627

#1715

PicoQuant GmbH

Rudower Chaussee 29, Berlin, Germany, 12489
49 30 6392 6560; fax 49 30 6392 6561
sales@optoelements.com; www.picoquant.com

New Product: Multi-channel Picosecond event timer and time correlated single photon counting system and USB interface.

Photon Counting Instrumentation product lines include Time-Correlated Single Photon Counting (TCSPC) electronics and detectors (PMT, SPAD), fluorescence lifetime spectrometers, time-resolved fluorescence microscopes and upgrade kits for Laser Scanning Microscopes. Applications include Single Molecule Spectroscopy, Fluorescence Lifetime Imaging (FLIM), Fluorescence Resonance Energy Transfer (FRET), Fluorescence Correlation Spectroscopy (FCS), Optical tomography and Quantum Key Distribution. Contact: Nick Bertone, Nick.Bertone@picoquant-usa.com.

#6065

#6333

PicoQuant Photonics North America, Inc. #433

61 Union St, Westfield, MA, 01085
413/562-6161; fax 413/562-6167
info@picoquant-usa.com; www.picoquant-usa.com

Product lines include Pulsed Diode Lasers, Time-Correlated Single Photon Counting (TCSPC) electronics and detectors, fluorescence lifetime spectrometers, time-resolved fluorescence microscopes and upgrade kits for Laser Scanning Microscopes. Applications include Single Molecule Spectroscopy, Fluorescence Lifetime Imaging (FLIM), Fluorescence Resonance Energy Transfer (FRET), Fluorescence Correlation Spectroscopy (FCS), Optical tomography and Quantum Key Distribution. Contact: Alain Bourdon, Vice President, alain.bourdon@picoquant-usa.com

#1912

PiezoMotor AB

Stålgatan 14, Uppsala, Sweden, 754 50
46 18 4895000; fax 46 18 4895001
info@piezomotor.com; www.piezomotor.com

PiezoMotor AB is a high-tech company with over 20 years of innovative micro system and piezo motor research. PiezoMotor AB develops, manufactures and brings to market several types of micro motors, all based on piezo technology. PiezoMotor AB markets the nano-precision Piezo LEGS® motors and the extremely small PiezoWave® motors designed for mass volume applications such as handheld devices, digital household electrical appliances, medical technology devices and the automotive industry. Contact: Olle Lindkvist, Global Sales Manager, olle.lindkvist@piezomotor.se; Peo Sollerud, VP Marketing, peo.sollerud@piezomotor.se.

#6820

#237

Piezosystem Jena, Inc.

#127

SPIE Corporate Member

54 Hopedale St, Hopedale, MA, 01747
508/634-6688; fax 508/634-6868
jim@piezोजना.com; www.piezोजना.com

New Product: New dynamic nanopositioning stage nanoSX 800 CAP unparalleled capabilities with 800 µm.

Piezosystem Jena manufactures ultra-high precision translation devices with options for sub-nanometer resolution and high speed kHz scanning applications. Complete modular and standalone electronics. Open and closed loop control systems. High precision variable slit apertures. Microscope objective focusing stages. We also manufacture multimode fiber optic switches for spectrographic studies. Piezosystem Jena is the exclusive US representative for SIOS interferometric equipment. Contact: Peter Viglas, Sales Engineer, peter@piezोजना.com; Jim Litynski, President, usa@piezोजना.com.

Pinellas County Economic Development #639

13805 58th St N Ste 1-200, Clearwater, FL, 33760
727/464-7353; fax 727/464-7053
dsobush@pinellascounty.org; www.pced.org

Pinellas County offers optics and photonics companies a progressive pro-business climate paired with performance-based job creation incentives, competitive tax rates, a network of established industry professionals, developed infrastructure and a skilled workforce. Pinellas County is committed to training tomorrow's optics and photonics professionals through unique workforce development programs and extensive partnerships with local colleges and national universities. Contact: Dave Sobush, Business Development Manager, dsobush@pinellascounty.org.

PLANSEE Thermal Management Solutions #6517

SPIE Corporate Member

10113 Carroll Canyon Rd, San Diego, CA, 92131
858/271-1993; fax 858/271-1980
sales@plansee-tms.com; www.plansee-tms.com

New Product: Copper Diamond Composite, AuSn predeposited solder.

Plansee TMS is a leading producer of high conductivity expansion matched materials such as Cu/W, Cu/Mo, and Diamond composites. In addition to producing materials, we also incorporate into finished hermetic packages. Contact: Keyur Amin, Regional Sales Manager, kamin@plansee-tms.com.

Plasmaterials, Inc.

#6406

2268 Research Dr, Livermore, CA, 94450
925/447-4030; fax 925/447-4031
info@plasmaterials.com; www.plasmaterials.com

Plasmaterials, Inc. provides high purity Physical Vapor Deposition materials in nearly every element, alloy, composition and component available on the periodic table. Products include sputtering targets, backing plates and other sectors of the materials market including evaporation materials, crucible liners and electron beam starter sources. In addition, we also provide metallic bonding services. As a full service company, Plasmaterials, Inc. can provide all of your deposition materials needs. Contact: Dale Postin, Sales Engineer, dale@plasmaterials.com.



- Lenses
- Coating
- Assembly
- Other Components

A manufacture of precision optical components, supplying comprehensive services from optical fabrication to coating and lens assembly.



Focus Optics, Rising Together!

A : 1st Floor, Bldg24#, Jinshan Fuwan Industrial Park, Fuzhou 350002, China T :+86-591-8334-9016 F :+86-591-8330-0646
E : marketing@rising-ee.com H : //www.rising-ee.com

Plymouth Grating Laboratory

#6421

70 Industrial Park Rd, Plymouth, MA, 02360
508/503-1719; fax 508/503-1727
sales@plymouthgrating.com; www.plymouthgrating.com

New Product: Pulse compression gratings, gratings and nanostructure optics, coating design and development.

Plymouth Grating Laboratory designs and manufactures gratings using scanning beam interference lithography (SBIL). This technique allows production of gratings on very large substrates. PGL also maintains expertise in optical coatings, reactive ion-etching, metrology, and cleaning for large optics. PGL is very familiar with the needs of the high-energy and high-power laser community and has developed the manufacturing technology to enable both high damage threshold and precision wavefront control. Contact: Flemming Tinker, Consultant, ftinker@foptics.com; Douglas Smith, President, sales@plymouthgrating.com.

Photonics West Exhibitor Directory

POG Precision Optics Gera

#1801

GP Keplerstr 35, Gera, Germany, 07549
49 365 77393 0; fax 49 365 77393 29
jan.schubach@pog.eu; www.pog.eu

New Product: Custom microstructures on ceramics and glass ceramics. Custom telecentric measurement lenses.

POG is a leading German manufacturer of custom and standard microstructures on glass and ceramics - reticles, scales, calibration plates and test targets. Highest quality for large serial quantities as well as for small batches. All processes and technologies in house. POG designs, develops and produces custom optical systems and components from UV to IR for semiconductor industry, machine vision, aerospace and defense. POG is a management owned company and employs a staff of 100. Contact: Ray George, Marketing Manager, ray.george@pog.eu.

Point Source

#1427

 SPIE Corporate Member

Mitchell Point, Ensign Way, Hamble Hampshire, United Kingdom, SO31 4RF
44 2380 744500; fax 44 2380 744501
sales@point-source.com; www.point-source.com

New Product: iFLEX-Viper fiber coupled multi-laser engine with software control for 'Out-of-the-box' performance.

Point Source design and manufacture high performance laser and fiber-optic delivery systems for fluorescence applications in Light Microscopy, Flow Cytometry and DNA Sequencing. Products include single unit and fiber-coupled laser modules up to fully integrated and turn-key multi-laser solutions. Contact: Fiona Evans, Field Sales Engineer - North America, sales@point-source.com; Scott Kelsall, Technical Support Engineer, sales@point-source.com.

Polaris Electronics Corp.

#6337

630 S Rogers rd, Olathe, KS, 66062
913/563-7164; fax 913/764-5045
sales@polariselectronics.com; www.polariselectronics.com

Hermetic sealing equipment including AC or CD projection welders, parallel seam sealers, parallel gap welders, spot welders, lid tackers, atmosphere chambers and vacuum bake-out ovens. We also provide contract hermetic sealing and processing services for small electronics packages. Contact: Stan Mitchell, Sales/ Exhibits Manager, stan@polariselectronics.com; Cara Calligan, Sales, cara@polariselectronics.com.

PolarOnyx, Inc.

#6131

 SPIE Corporate Member

470 Lakeside Dr Ste F, Sunnyvale, CA, 94085
408/245-9588; fax 408/245-9587
www.polaronyx.com

New Product: Low cost MHz high energy ultrashort fiber laser and Arbitrary pulse shape pulsed fiber laser.

World leading company in high energy/power ultrashort (fs, ps, ns) and super continuum fiber lasers. Our products feature fiber delivery, superior stability and reliability, turn-key and maintenance-free operation. They are excellent for material processing, micromachining, spectroscopy, microscopy, biomedical, optical sensing applications. OEM and instrument version are available. Wavelength ranges from VIS to IR. Contact: Lihmei Yang, Director Sales and Product, lihmeiyang@polaronyx.com. Contact: Jian Liu, President, jianliu@polaronyx.com; Lihmei Yang, Director, lihmeiyang@polaronyx.com.

Polymer Optics, LLC

#3026

 SPIE Corporate Member

3100 Dutton Ave Unit 118, Santa Rosa, CA, 95407
707/573-5929; fax 707/573-5951
info@polyoptics.com; www.polyoptics.com

Polymicro Technologies

#439

 SPIE Corporate Member

A subsidiary of Molex Incorporated, 18019 N 25th Ave, Phoenix, AZ, 85023-1200
602/375-4100; fax 602/375-4110
polymicrosales@molex.com; www.polymicro.com

Manufactures multimode, step-index fused silica optical fibers with polyimide, acrylate, silicone and custom buffers; solarization-resistant optical fibers; IR hollow silica waveguides; broad spectrum fibers; fiber optic cables and assemblies; high strength, high temperature flexible fused silica capillaries; square capillaries; light guiding capillaries; custom precision silica, quartz rod and tubing pieces; custom shaped rod and tubing; multilumen tubing; telecom ferrules and sleeves. Contact: Polymicro Sales Department.

Polytec Inc.

#1416

1342 Bell Ave Ste 3A, Tustin, CA, 92780
714/850-1835; fax 714/850-1831
www.polytec.com

Polytec is a world leader in optical measurement systems and features its Micro System Analyzer (MSA-500) for MEMS characterization. The MSA-500 is our latest technology combining powerful tools for precise 3D analysis of structural vibration and surface topography of microstructures. The MSA-500 incorporates three technologies: Laser Vibrometry for fast real-time measurement of out-of-plane motion, Strobe Video Microscopy for in-plane motion analysis, and White Light Interferometry for high resolution surface topography measurement.

POPSUD-OPTITEC

#6241

c/o Technopôle de château Gombert, 38 rue Joliot Curie, Marseille cedex 13, France, 13388
33 4 91 05 59 69; fax 33 4 91 05 69 84
marie.lhoutellier@popsud.org; www.popsud.org

The "Pôle de Compétitivité" OPTITEC, led by the Association POPsud, links together more than 160 members in the south of France: 60% of companies and 40% of research and education institutions. Focused on the monitoring of leading edge technology, It is well placed to make the South of France into a pole of attraction for photonics and optics at European scale. We provide several services for our members: Presence in the POPsud's directory; Organization of events to federate a community of academic and industry stakeholders and to develop synergy in R&D projects; Competitive intelligence: Information on the optic and photonic market, new technologies, benchmarking of the other clusters in photonics; Financial engineering and assistance for the financing of R&D projects; Economic missions to help SMEs developing their activities at an international level. Contact: Marie Lhoutellier, Contact Manager, marie.lhoutellier@popsud.org; Guillaume Brun, Contact Manager, guillaume.brun@popsud.org.

Power Technology, Inc.

#521



PO Box 191117, Little Rock, AR, 72219-1117
501/407-0712; fax 501/407-0036
sales@powertechnology.com; www.powertechnology.com

Power Technology, Inc. designs, manufactures and distributes laser diode products for OEM analytical, biomedical and industrial applications. Products include laser diode modules with wavelengths from 370 to 1600nm, temperature stabilized modules, lasers with beam circularization and CW, pulsed and modulated lasers. Contact: James Jackson, Sales Engineer, jjackson@powertechnology.com; Mark Walker, Sales Engineer, mwalker@powertechnology.com.

Powerlase

#2038

203 Joseph St, O'Fallon, MO, 63366
636/272-7227; fax 636/272-3909
powerlase@rpmclasers.com; www.rpmclasers.com

New Product: Starlase: 200 - 1.6kW IR, pulsed, DPSS, nanosecond lasers with available 532 and 355nm options.

POWERLASE Ltd. is an innovative, independent, high power laser company, focused on powerful nanosecond q-switched DPSS lasers developed for industrial applications primarily for use in the materials processing, microelectronics, solar and semiconductor markets. POWERLASE combines high average power, high repetition rates and high intensity pulses; a combination not previously available together. Its utilization of these features introduces laser processing into new and innovative applications. Contact: Shawn Smith, Product Manager.

PowerPhotonic Ltd.

#1733

St David's Business Park, 1 St David's Dr, Dalgety Bay Fife, United Kingdom, KY11 9PF
44 1383 825910; fax 44 1383 825739
info@powerphotonic.co.uk; www.powerphotonic.co.uk

Pranalytica, Inc.

#6907

1101 Colorado Ave, Santa Monica, CA, 90401
310/458-4493; fax 310/458-0171
fxmeguire@pranalytica.com; www.pranalytica.com

New Product: *Fully packaged high power QCL's (>2w RT, >5w @ 80k). *Handheld Infrared Illuminators.

Pranalytica has developed and is the only commercial manufacturer of fully packaged high power quantum cascade lasers producing >2W CW/RT (>5W CW at 80K). In addition, manufactures handheld MWIR/LWIR illuminators for military applications and ultra sensitive trace gas detection instruments for commercial, environmental, defense, security and medical customers. Contact: Francis X. McGuire, fxmeguire@pranalytica.com; Alexei Tsekoun, atsekoun@pranalytica.com.

Precision Asphere, LLC

#3025



48860 Milmont Dr Unit 105-C, Fremont, CA, 94538
510/668-1508; fax 510/668-1595
sales@precisionasphere.com; www.precisionasphere.com

PRECISION ASPHERE, LLC. specializes in manufacturing of ultra high precision custom aspheres. From prototype to medium volume production, we offer fast (f/1 or faster) on- and off-axis aspheric optics with super smooth surface and very low irregularity in the mid-frequencies range. Base materials can be all glasses, glass ceramics, mono-crystal Si (polished), Silicon Carbide, etc... With our proprietary computer controlled technology and over 14 years of asphere fabrication experience, PRECISION ASPHERE offers you the highest Performance-to-Cost ratio in the industry.

Precision Glass and Optics

#6312



3600 W Moore Ave, Santa Ana, CA, 92704-6835
714/540-0126; fax 714/540-1482
info@pgo.com; www.pgo.com

New Product: We are your one stop optics shop! Precision Optics, ITO Coatings, Laser Marking and Waterjet Cutting.

PG and O combines the high volume, low cost manufacturing of the commercial glass industry with the technical precision of optical and thin film coating. This single facility approach makes us uniquely qualified to satisfy today's optical component needs. Contact: Sales.

Precision Optical

#646

869 W 17th St, Costa Mesa, CA, 92627-4336
949/631-6800; fax 949/642-7501
sales@precisionoptical.com; www.precisionoptical.com

Manufacturer of laser-quality precision optical assemblies and components (vuv to ir) including prisms, mirrors, windows, retroreflectors, filters, plate-type beamsplitters, alignment cubes, polarizing and nonpolarizing cube beamsplitters and coatings. Contact: Rod Randolph, President and C.O.O., rrandolph@precisionoptical.com; Jim McClure, Sales Manager, jmccclure@precisionoptical.com.

Precision Optics Corp.

#5085

22 E Broadway, Gardner, MA, 01440
978/630-1800; fax 978/630-1487
cgerlowski@poci.com; www.poci.com

New Product: POC announces the availability of micro endoscopes to sizes as small as 0.3mm in diameter.

For 25 years, Precision Optics Corporation has provided cutting edge optics for medical and industrial applications. POC is a leading provider of custom optics solutions including high resolution micro lenses and prisms, micro endoscopes, small diameter fiberscopes and illumination assemblies. POCI designs, develops and manufactures optical systems with rapid prototyping. FDA registered, ISO 9001 certified. Products are approved for CE marking. Contact: Brian Spies, Director of Marketing, bspies@poci.com; Chuck Gerlowski, cgerlowski@poci.com.

Precision Photonics Corp.

#1214

3180 Sterling Circle, Boulder, CO, 80301
303/444-9948; fax 303/444-9951
info@precisionphotonics.com; www.precisionphotonics.com

New Product: Custom sputtered coatings including high-energy HRs to R > 99.995% and ARs to < 0.05% reflectivity.

At PPC, measurement is fundamental to everything we do. Whether testing reflectivity to 99.995%, verifying parallelism to less than 0.1 arc seconds or actually certifying the maximum energy thresholds of our coatings, we believe that the numbers don't lie. We view ourselves as your colleague and will partner with you to develop custom and OEM laser optics that work, at a price and lead time that meet your budgets and requirements. Contact: Emily Kubacki, sales@precisionphotonics.com; Nick Traggis, info@precisionphotonics.com.

Precision Polishing, Inc.

#6224

8455 Morro Rd, Atascadero, CA, 93422
805/466-3015; fax 805/466-0943
bsloan@fibertools.com; www.fibertools.com

Photonics West Exhibitor Directory

Precitec Optronik GmbH

#1801

Raiffeisenstr 5, Rodgau, Germany, 63110
49 6106 829031; fax 49 6106 829026
info@precitec-optronik.de; www.precitec-optronik.de

Precitech, Inc.

#1145



44 Blackbrook Rd, Keene, NH, 03431
603/357-2511; fax 603/358-6174
sales@precitech.com; www.precitech.com

Precitech, Inc., suppliers of Ultra Precision machining, announces the Nanoform® series; 250ultra, 250ultragrind and 700ultra precision multi-axes machines, now utilize an unprecedented 0.01 nanometer programming resolution and 16 picometer feedback resolution. These machines are designed for production of optical lenses, optical mold inserts, mirrors, and precision mechanical components and have consistently been the most productive, versatile and accurate machines in the industry. Contact: Jon Harman, Global Sales and Marketing Manager, jon.harman@ametec.com.

Primes GmbH

#1801

Max-Planck-Str 2, Pfungstadt, Germany, 64319
49 6157 9878 0; fax 49 6157 9878 28
info@primes.de; www.primes.de

New Product: LaserQualityMonitor: The automated characterization for laser beams from UV to NIR, 1 mW up to 10 kW.

PRIMES GmbH produces measuring devices for the production with laser radiation. Particularly, PRIMES designs, constructs and sells equipment for characterizing the laser beam parameters: power, beam profile, beam direction and beam as well as M². PRIMES produces and constructs laser beam diagnostic devices for laser machine builders, beam source producers, R&D as well as laser users. Contact: Dr. Harald Schwede, Sales Manager, h.schwede@primes.de.



INTERNET PAVILION; METER BOARD; PLASMA SCREEN SPONSOR

Princeton Instruments

#1407



3660 Quakerbridge Rd, Trenton, NJ, 08619-1208
609/587-9797; fax 609/587-1970
moreinfo@piacton.com; www.piacton.com

With 30+ years of providing flexible and efficient solutions, Princeton Instruments is the proven choice for high-performance CCD cameras, spectroscopy systems and optical coatings for research and industrial applications. Acton Series spectrographs provide limitless flexibility and performance in numerous applications. CCD cameras feature the PIXIS, with a variety of sensors for imaging and spectroscopic measurements, thermo-electric cooling and lifetime vacuum guarantee for the CCD chamber. Contact: Jack Mills, United States Sales Manager, jmills@princetoninstruments.com; Antoinette O'Grady, European Sales Manager, aogrady@princetoninstruments.com.

PriTel, Inc.

#6004



PO Box 4025, 513 Weston Ridge Rd, Naperville, IL, 60567-4025
630/983-2200; fax 630/983-2260
pritel@pritel.com; www.pritel.com

Process Materials Inc.

#1541



5625 Brisa St Ste A, Livermore, CA, 94550
925/245-9626; fax 925/245-9629
pnorlander@processmaterials.com; www.processmaterials.com

Process Materials is a leading world wide manufacturer of sputtering targets, evaporation materials, backing plates and bonding services for thin film deposition. We have special expertise in cylindrical sputtering targets. Whatever your requirements; R&D, pilot production or full scale production, you can depend upon us to supply materials of the highest quality. Process Materials Inc. is focused upon providing and perfecting the highest level of performance. Contact: Pete Norlander, National Sales Manager, pnorlander@processmaterials.com; Adam Nudelman, Sales Engineer, anudelman@processmaterials.com.

PROMET International Inc.

#6324



4611 Chatsworth St, Shoreview, MN, 55126-5813
651/481-9661; fax 651/481-9565
info@promet.net; www.promet.net

PROMET® International provides precision opto mechanical design, testing and manufacturing services and produces FIBO true phase-shifting, vibration-insensitive Michelson interferometers for (portable) easy and exact 3D/2D fiber optic connector endface and micro-component verification. With experienced staff and comprehensive laboratory facilities, PROMET has served aerospace, biometrics, data network, machine vision, medical, military and telecommunications customers worldwide since 1993. Contact: Jeanne Ann Zinser, Sales and Marketing Director, fibo@promet.net; Helena Mares, Communications Manager, helena@promet.net.

Provac GmbH

#1801

Hauptstr 103b, Oestrich-Winkel, Germany, 65375
49 6723 913 9417; fax 49 6723 913 9418
www.provac.li

New Product: PRO 500 Evaporation System for precision optical coating.

High Vacuum Evaporation and Sputtering Systems - Provac serves the market specializing in radio frequency plasma enhanced coating techniques such as evaporation, sputter coaters and highly specialized custom systems tailored to our customer's specific requirements, reconditioning and upgrade older PVD systems. Contact: David Gary, Vice President, david.gary@ricmar.com.

Pulse Instruments

#6610

1234 Francisco St, Torrance, CA, 90502
310/515-5330; fax 310/515-0068
sales@pulseinstruments.com; www.pulseinstruments.com

New Product: 14bit/40MHz or 16bit/2MHz data acquisition, up to 32 chs in parallel w/real-time image correction.

Leading manufacturer of automated systems and equipment for characterizing and production test of IR FPA, CCD and CMOS sensors. Products include pattern generators, clock drivers, DC bias supplies, high-speed/low-noise data acquisition, automated test and imaging software. Our systems are used for testing visible and infrared imagers for defense, earth-resource, weather, biomedical, commercial, industrial automation, security and consumer applications. Contact: Steven Kan, Vice President Sales, steven@pulseinstruments.com; Scott Williams, Director of Engineering, scott@pulseinstruments.com.

Pyrophotonics Lasers Inc.

#6124

275 Kesmark, Dollard-des-Ormeaux, QC, Canada, H9B 3J1
514/904-9000; fax 514/684-0400
sales@pyrophotonics.com; www.pyrophotonics.com

New Product: PyroFlex 25 W IR, 10 W Green variable pulse fiber laser.

Pyrophotonics manufactures pulsed fiber lasers featuring variable pulse duration, repetition rates and energies. In addition, thanks to PyroFlex's unique technology, and unlike Q-Switched lasers, the pulse shape can be programmed by the customers to fit the most demanding applications. Contact: Vittorio Fossati-Bellani, Vice President, Sales and Marketing, vfoassati@pyrophotonics.com; Richard Murison, CTO, rmurison@pyrophotonics.com.

QED Technologies, Inc.

#935

SPIE Corporation
Member

1040 University Ave, Rochester, NY, 14607
585/256-6540; fax 585/256-6541
sales@qedmrf.com; www.qedmrf.com

New Product: The new ASI: a revolution in asphere metrology from QED. Booth 935.

QED's optics manufacturing solutions provide companies with "the Confidence Factor", resulting in higher yields, greater profits and customer satisfaction. SSI® technology sets a new standard in metrology, providing full-aperture metrology of optical parts, from flats to spheres and aspheres, using one high precision tool. MRF® polishing is the industry standard for finishing millimeter to meter(s)-size flat, spherical and aspheric optics in the precision optics markets. www.qedmrf.com. Contact: Mike DeMarco, Sales Manager, demarco@qedmrf.com; Marc Tricard, Director of Business Development, tricard@qedmrf.com.

QImaging

#1407

19535 56th Ave Ste 101, Surrey, BC, Canada, V3S 6K3
604/530-5800; fax 604/539-1825
info@qimaging.com; www.qimaging.com

New Product: Retiga-EXL: The world's first 30MHz, 14-bit, cooled CCD camera for bio-imaging market.

QImaging designs, manufactures and markets high performance digital FireWire™ and USB 2.0 cameras for imaging in life science and industrial applications. QImaging specializes in CCD and CMOS digital cameras for demanding applications in quantitative image analysis and high resolution images for publication. Contact: Dan Erwin, Sales Manager, derwin@magworldwide.com; Jeffrey Harris, Sales Manager, jharris@magworldwide.com.

Qinhuangdao Audio-Visual Machinery Research Institute

#6150

No 165 Hebei St, Qinhuangdao Hebei, China, 066000
86 335 3255353; fax 86 335 3255351
chenchen6@yahoo.com.cn; http://www.shtjx.cn

The institute was established in 1964. We have been engaged in research, development and production in cinematographic machinery, as well as in educational and office equipment. In recent years, we have got plentiful and substantial achievement in the field of digital camera technology. We have successfully developed digital movie projection lens, digital projection wide-angle lens, fish-eye projection eyes and fish-eye monitoring lens, etc. We sincerely look forward to collaborating with all businesses.

Qioptiq Group

#1427

SPIE Corporation
Member

78 Schuyler Baldwin Dr, Fairport, NY, 14450
585/223-2370; fax 585/223-3413
www.qioptiqimaging.com

New Product: FETURA Programmable zoom lens delivers unprecedented throughput, precision and endurance.

The Qioptiq Group is a global leader in optical and photonic OEM solutions at component, sub-assembly, module and system levels for both commercial and defense sectors. Standard products include: optics (polymer, aspheric, diffractive); prisms; mirrors; beam splitters; filters; optical tables; positioners; electro-optics; machine vision lenses; microscopes; lasers; fiber optic delivery; x-ray, UV-IR, night-vision; display technology; coatings; diamond-turning and polishing/grinding. Contact: Mario Ledig, Director Commercial Sales and Marketing, mario.ledig@qioptiq.com; Bill Gilman, Director Commercial Sales and Marketing, North America, bill.gilman@ny.qioptiq.com.

QPC Lasers, Inc.

#5029

15632 Roxford St, Sylmar, CA, 91342
818/986-0000; fax 818/833-1342
info@qpclasers.com; http://www.qpclasers.com

New Product: BrightLase® Ultra™ modules up to 120W at wavelengths 1200-1900nm for medical and defense applications.

QPC Lasers, Inc. is a world leader in the commercialization of a new generation of high brightness high power semiconductor lasers for industrial, defense, medical, and consumer markets. Founded in 2000, QPC is vertically integrated from epitaxy through packaging and performs all critical fabrication processes at its facility in Sylmar, CA. Contact: Laurent Vaissie, Director of Marketing and Sales, lvaissie@qpclasers.com.

QPhotonics, LLC

#6028

3830 Packard Rd Ste 280, Ann Arbor, MI, 48108
734/477-0133; fax 734/477-0166
info@qphotonics.com; www.qphotonics.com

QPhotonics is a specialist supplier of semiconductor light emitting devices in wavelength range 635nm-1700nm for research, development, and production. We offer a large variety of laser diodes, superluminescent diodes, and semiconductor optical amplifiers. Individual devices can be selected from stock and purchased online. We also provide controllers, mounts, collimators, and photodiodes for building laser systems.

Quality Thin Films, Inc.

#637

141 Burbank Road, Oldsmar, FL, 34677
813/855-1900; fax 813/855-5580
sales@qtf.com; www.qtf.com

New Product: Low loss, super high damage threshold mirrors for 1064nm. >50J, 20ns pulse has been qualified.

Quality Thin Films, Inc. is a manufacturer of optics, laser crystals and thin film coatings. We specialize in ultra high damage threshold coatings on super polished crystals and optics. QTF has newly acquired state of the art equipment for substrate fabrication, substrate preparation and leading edge coating equipment. Upgrades to our clean rooms and metrology enable QTF to continuously improve on quality with emphasis on customer service. ISO 9001:2000 certified. Contact: Karl George, Vice President, karlgr@qtf.com; Sales, sales@qtf.com.

Quanta Tech Inc.

#6159

116 W 23rd St, New York, NY, 10011
646/375-2452; fax 201/703-1788
sales@quanta-tech.com; www.quanta-tech.com

Photonics West Exhibitor Directory

Quantel



601 Haggerty Lane, Bozeman, MT, 59715
406/586-0131; fax 406/568-2924
info@quantelusa.com; www.quantel-laser.com

Quantel is a world leader in the design and manufacturing of fiber-lasers, diode and lamp pumped solid-state lasers, high power laser diodes, intense pulse light therapy and ultra-sound diagnostic products. Solutions include industrial, scientific, ophthalmologic, dermatologic, military and aerospace applications. Quantel also offers laser damage testing services. The United States subsidiary of Quantel was previously named Big Sky Laser Technologies and is now Quantel USA. Contact: sales@quantelusa.com.

Quantronix Corp.



41 Research Way, E Setauket, NY, 11733-3454
631/784-6100; fax 631/784-6101
qinfo@quantronixlasers.com; www.quantronixlasers.com

New Product: High Energy, Ultrafast Ti:Sapphire Amplifier System (includes Integra-C and new Ti-Light oscillator).

Manufactures industrial, scientific and OEM ultrafast Ti:Sapphire lasers and amplifiers, tunable ultrafast optical parametric amplifiers (OPAs), diode-pumped and lamp-pumped Nd:YAG, Nd:YLF and Nd:YVO₄ lasers in IR, second, third and fourth harmonics. Also manufactures a range of multi-wavelength scan heads, marking, deep engraving and micromachining systems. Offers complete computer control and system integration. Contact: Mark Boyle, Product Manager, Scientific Division, mboyle@quantronixlasers.com; Jeff Wojtkiewicz, Product Manager, Industrial Division, jwojtkiewicz@quantronixlasers.com.

Quantum Coating, Inc.

1259 N Chruch St, Moorestown, NJ, 08057
856/231-0706; fax 856/231-0709
www.quantumcoating.com

New Product: Etched Corning Eagle 2000 for use in ruggedization of Flat Panel Display products.

QCI serves the military, avionics, aerospace and bio-medical industries with a broad range of protected metallic mirrors and multilayer all-dielectric thin film filters. Our metallic coatings - aluminum, gold and silver - have long been the coating of choice for many defense, satellite and telescope programs. Our expertise in this field was highlighted in September 2007 when we were awarded the contract to coat the primary mirror segments for the James Webb Space Telescope (JWST). Contact: Dan Patriarca, President, danp@quantumcoating.com; Ian Stevenson, Director of Coating, istevenson@quantumcoating.com.

Quantum Composers

PO Box 4248, Bozeman, MT, 59772
406/582-0227; fax 406/582-0237
qcmail@quantumcomposers.com;
www.quantumcomposers.com

New Product: Model 9530 Digital Delay/Pulse Generator, 100MHz clock input for direct laser system synchronizing.

Quantum Composers is an industry leading manufacturer and designer of digital delay pulse generators. Our instruments provide excellent laser timing and event synchronization to meet virtually any demanding application. Other core competencies include laser systems design, optics design and custom fabrication. Contact: Alex Palm, Director of Sales and Business Development, apalm@quantumcomposers.com; Bridget Thornton, Marketing Manager, bthornton@quantumcomposers.com.

#427

Quantum Technology, Inc.

108 Commerce St Ste 102, Lake Mary, FL, 32746
407/333-9348; fax 407/333-9352
staff@quantumtech.com; www.quantumtech.com

Manufacturer of E-O modulation and deflection systems from DC to GHz with ADP, KDP, BBO, LiNbO₃ and LiTaO₃ E-O materials. E-O Pulse Picker, Optical Gating and REGEN systems with fast nanosecond transition times, variable pulse gate widths, E-O Q-switches and high voltage drivers; novel BBO and RTP Q-switches for diode-pumped solid-state lasers; and nonlinear optical crystals and systems.

Quebec Photonic Network

111 rue Lapierre, Local 1.845 BP 128, LaSalle, QC, Canada, H8N 2J4

514/368-1677; fax 514/368-2098
francoiselee@photoniquequebec.ca;
www.photoniquequebec.ca

Quebec Photonic Network is the only officially mandated organization representing the photonics industry in the province of Quebec, Canada. Our mandate is designed for the advancement of all photonic technologies by insuring all necessary applicable actions in promoting the commercial and scientific capabilities of its members on a global scene with networking and marketing events and venues. Contact: François Gonthier, President, francoiselee@photoniquequebec.ca; Françoise Lee, Membership Relations, francoiselee@photoniquequebec.ca.

#1413

#1700

Quest Innovations B.V.

Industrieweg 41, Middenmeer, The Netherlands, 1775 PW
31 227 604046; fax 31 227 604053

New Product: 5-CCD Multispectral prism based Scalable Smart Camera.

Quest Innovations is a leader in developing Multispectral Smart Cameras and advanced Imaging Systems. Quest produces the worlds first 5-CCD Prism based camera for Agriculture, Industry, Military and Security and Medical applications. Contact: R.J.C. Meester, President/CEO, Richard@quest-innovations.com.

#6270

R. Mathews Optical Works, Inc.

26280 Twelve Trees Ln, Poulsbo, WA, 98370
360/697-6160; fax 360/697-7417
bob@mathewsoptical.com; www.mathewsoptical.com

For 30 years Mathews Optical has been a respected source for the custom fabrication of precision refractive aspheric components from 10mm to 300mm diameter. From prototype to volume production. Contact: Bob Mathews, President, bob@mathewsoptical.com.

#3004

Radiant Dyes GmbH

Friedrichstr 58, Wermelskirchen, Germany, 42929
49 2196 81061; fax 49 2196 3422
info@radiant-dyes.com; www.radiant-dyes.com

Ti:Sapphire Laser: Our new pulsed Ti:Sa laser is based on the resonator concept of our reliable and well developed NarrowScan dye laser. This grazing incidence concept guarantees stable operation and excellent bandwidth <math><0.06\text{ cm}^{-1}</math> over the whole tuning range (695-905nm). With add. SHG the tuning range can be extended from 350 to 450nm. Two more Ti:Sa crystals are used as pre- and three-pass main amplifier, allowing high conversion efficiencies (>15%) even at high pump energies (-600mJ @ 532nm). Contact: Monika Thomas, monika@radiant-dyes.com.

#6078

#1921, 2021

Radiation Monitoring Devices, Inc.

#327

44 Hunt St, Watertown, MA, 02472
617/668-6800; fax 617/926-9743
info@rmdinc.com; www.rmdinc.com

New Product: Si-APD-world's largest active area for arrays, magnetic fields-high gain and sensitivity: 120-1024 nm.

RMD Instruments is the commercialization arm of Radiation Monitoring Devices, a sensors and detectors research company. RMD Instruments is ISO-certified offering a family of Avalanche Photodiode components and instruments including Silicon, CMOS, and Geiger-mode, arrays and quadrant detectors. Other products include gamma ray imaging systems for identification of radioactive materials, CsI imaging sensors, heavy metal identification instruments for RoHS certification. Inquire about sponsored research. Contact: Peter Waer, Marketing Product Manager, pwaer@rmdinc.com; Dr. Mike Squillante, VP of Research, msquillante@rmdinc.com.

Raicol Crystals Ltd.

#5025

15 Giron St Industrial Zone, Yehud, Israel, 56217
972 3 936 7412; fax 972 3 906 8969
info@raicol.com; www.raicol.com

New Product: Periodically Poled SLT Crystal, PPSLT), SLT crystal.

Raicol manufactures nonlinear optical elements, including KTP, HGTR KTP, RTP, PPKTP and PPSLT. Raicol's newest products are the RTP electrooptic Q-switch operating for high-power high-repetition rate applications, the monolithic KTP OPO, Stoichiometric Lithium Tantalate (SLT) and Barium Nitrate (BN) crystals. Raicol also supplies Cr:YAG, BBO and LBO elements. Contact: Moshe Shapira, VP of Sales and Marketing, moshe@raicol.com.

Rainbow Research Optics, Inc.

#1215

SPIE Corporate Member

6830 S Dawson Circle, Centennial, CO, 80112
303/371-3000; fax 303/371-1333
sales@rroptics.com; www.rainbowoptics.com

Manufacturer of high-precision optical components and high-power laser coatings from UV to IR. Supplier of stock and custom optics. Products include windows, mirrors, wave plates, large wedges, spherical lenses and prisms. In-house coatings include antireflection, high reflection, dichroic and polarizing. Optics from 5 mm to 17 inches. Contact: Sales Representative, Sales Engineer, sales@rroptics.com.

RAPT Industries, Inc.

#6335

SPIE Corporate Member

46535 Fremont Blvd, Fremont, CA, 94538
510/933-1000; fax 510/661-9227
sales@raptindustries.com; www.raptindustries.com

Raylase AG

#1627

Argelsrieder Feld 2-4, Wessling, Germany, 82234
49 8153 8898 46; fax 49 8153 8898 10
w.gruenwald@raylase.de; www.raylase.de

RAYLASE is an international pioneer in developing modular components and manufacturing subsystems (deflection units) for laser beam deflection, modulation and control including creative software and electronics. The RAYLASE product range encompasses deflection heads for CO₂, HeNe and Nd:YAG lasers, frequency doubled and frequency tripled Nd:YAG lasers, diode and argon lasers. Our products can handle laser beams with a power capacity between a few milliwatts and 2.5 kilowatts. Contact: Philip Crowley, phil@markettecinc.net.

Redfern Integrated Optics, Inc.

#6624

3350 Scott Blvd Bldg 62, Santa Clara, CA, 95054
408/970-3500; fax 408/970-3200
www.rio-inc.com

New Product: High performance cost effective External Cavity Lasers designed for Sensing Applications.

Redfern Integrated Optics (RIO), Inc. develops and manufactures laser sources based on proprietary PLANEX™ (Planar External Cavity Laser) technology, which enables cost effective, high performance in many applications. Contact: Lew Stolpner, Director, Product Management, lew.stolpner@rio-inc.com; Mike Staskus, mike.staskus@rio-inc.com.

Redfish Photonics

#6234

5460 Skylane Blvd, Santa Rosa, CA, 94503
707/545-9800; fax 707/545-9801
info@redfishphotonics.com; www.redfishphotonics.com

Redfish Photonics (RPI) is an extension of Cal Sensors, Inc., a manufacturer of IR detectors and Emitters. RPI assembles and packages customer furnished detectors and components in hermetically sealed microelectronic packages with TE coolers and temperature sensors. Engineers on-site to discuss our IR products and your custom packaging requirements. Contact: Patricia Elias, Manager, Sales and Marketing, patt@redfishphotonics.com.

Remtec, Inc.

#6190

100 Morse St, Norwood, MA, 02062
781/762-9191; fax 781/762-9777
sales@remtec.com; www.remtec.com

New Product: Submounts with "NO PULL BACK" metalization of 50 micron thick copper on BeO and AlN.

Remtec manufactures cost effective custom metalized ceramic substrates with PCTF® (Plated Copper on Thick and Thin Film) metallization for thermal management applications. Products include custom high performance laser and photo diodes submounts, optoelectronics circuits, and spacers. Alumina, Beryllia and Aluminum Nitride ceramics with 25-75 micron copper accept gold tin soldering and are gold wire bondable. Metalization exhibits reliable adhesion during die attach and components assembly. Contact: Nahum Rapoport, President, nrapoport@remtec.com; David Suconick, Technical Director, dsuconick@remtec.com.

Research Electro-Optics, Inc.

#514

SPIE Corporate Member

5505 Airport Blvd, Boulder, CO, 80301
303/938-1960; fax 303/447-3279
sales@reoinc.com; www.reoinc.com

REO is an integrated supplier of precision optics, assemblies, and laser products as well as design services and full manufacturing capabilities that enable rapid and cost effective implementation of optical systems for industrial markets such as defense, aerospace, semiconductor production, telecommunications, and medical instrumentation. Contact: Mark Damery, VP and General Manager of Worldwide Sales, markd@reoinc.com; Ed Yousse, National Sales Manager, edy@reoinc.com.



Free Popcorn

Popcorn carts will be located in the back of Exhibition Hall 3 and South Hall 1 and will be open from 11:00 am to 4:00 pm, Tuesday through Thursday.

Photonics West Exhibitor Directory

Resonon, Inc.

#6419

619 N Churuch Ste 3, Bozeman, MT, 59715
406/586-3356; fax 406/586-3357
inquiry@resonon.com; <http://www.resonon.com/index.html>

New Product: The Pika II Visible/Near-IR imaging spectrometer is compact, cost-effective, and easy to use.

Resonon offers compact imaging spectrometers, also known as hyperspectral imagers. These systems provide high-resolution images with a detailed spectral curve for every pixel. Our Visible/Near-IR Pika II imaging spectrometers have been deployed on platforms ranging from microscopes to airplanes. Spectronon software provides user-friendly data acquisition, visualization, and analysis options for near plug-and-play start up. Contact: Rand Swanson, swanson@resonon.com; Casey Smith, smith@resonon.com.

Reynard Corp.

#6368



1020 Calle Sombra, San Clemente, CA, 92673-6227
949/366-8866; fax 949/498-9528
sales@reynardcorp.com; www.reynardcorp.com

Reynard Corp. supplies custom/stock optical components and thin film coatings 0.2µm to 25µm (UV-far IR) to demanding specs for military, aerospace, medical, telecom applications. In-house services: opto and mech fabrication, photolithography and component sub-assembly. Our expertise in military, aerospace, medical, telecom and R&D markets enables us to stay on the leading edge of technological advancements through research partnerships, commercial development programs, SBIR programs and internal R&D. Contact: Beth Kinchuk, Sales Manager, beth@reynardcorp.com.

Ricmar Sales and Service, Inc.

#1801



193 Hyannis Ct, Aptos, CA, 95003
831/688-4525

New Product: PRO 500 Evaporation System for precision optical coating.

Ricmar Sales and Service provides responsive worldwide technical, sales and service support for the Ricmar Group business enterprises, all of which design, manufacture and support their products, each specializing in custom equipment and process development. Contact: David Gary, Vice President, david.gary@ricmar.com.

Rikei Corp.

#6413

1-26-2 Nishi-Shinjuku, Shinjuku-ku, Tokyo, Japan, 163-0535
81 3 3345 2187; fax 81 3 3348 4439
shinji@rikei.co.jp; www.rikei.co.jp

New Product: High power, High reliability Ir/Red PSL, High Speed Red PSL, High Power Red/Ir LED for SpO2 sensor.

Daido Steel Co., Ltd. is a leading manufacturer and global supplier of high power, high speed and high reliability Point Source LED (PSL) products with more than 23 years of experience in LED epitaxial techniques and chip structure design. Contact: Shinji Yokoyama, General Manager, shinji@rikei.co.jp; Hiroaki Matsubara, Sales, h.matsubara@rikei.co.jp.

Rising Electro-Optics Ltd.

#6278

1st Fl Bldg 24 JinShan, FuWan Industrial Park No 869 PanYu Rd, Fuzhou, China, 350002
86 591 8334 9016; fax 86 591 8330 0646
marketing@rising-eo.com; www.rising-eo.com

Rising Electro-Optics is an OEM manufacturer of precision optical components specializing in lenses, coatings and assemblies. Supplier of high quality, low cost products to the laser, electronics, semiconductor, telecommunications, thermal imaging and medical markets. Contact: Bruce Chen, General Manager, bruce@rising-eo.com; Sales.

RMI Laser, LLC

#911



106 Laser Dr, Lafayette, CO, 80026
303/664-9000; fax 303-664-9090
laser@rmico.com; <http://RMILaser.net>

Rochester Precision Optics LLC

#337



850 John St, West Henrietta, NY, 14586
585/292-5450; fax 585/292-5459
sales@rpoptics.com; www.rpoptics.com

New Product: Optir™ 3 molded infrared aspheres offer a low cost IR optical solution.

Manufacturer and designer of precision molded glass visible and LWIR aspherical lenses and optical assemblies for Defense, Imaging, Industrial and Medical industries. Vertically integrated manufacturing for prototype and high volume. The latest automated optical manufacturing, diamond turning, advanced thin film coating and precision machine centers based on over 25 years of development and production experience at Kodak Optical Imaging Systems. Molded aspheres from 1mm to 60mm diameters. Contact: Edward Patton, Director Sales and Marketing, epatton@rpoptics.com; William Hurley, President, whurley@rpoptics.com.



GENERAL REFRESHMENTS SPONSOR

Rocky Mountain Instrument Co.

#911



106 Laser Dr, Lafayette, CO, 80026
303/664-5000; fax 303/664-5001
sales@rmico.com; www.rmico.com

We hit the tough specs and consistently deliver on time, while listening to our customers to make sure we are fulfilling their goals. This is our 50 year tradition and how our customers define quality. Tell us your needs and our experts will provide you with the cost effective solution. Contact: Rae Hunt, Account Manager, sales@rmico.com.

Roithner Lasertechnik GmbH

#6332

Wiedner Hauptstr 76, Vienna, Austria, 1040
43 1 586 52 43 0; fax 43 1 586 52 44
office@roithner-laser.com; www.roithner-laser.com

New Product: 405nm laser diodes and modules, deep UV LEDs (240nm to 340nm), high power laser diodes (red, IR).

Roithner Lasertechnik GmbH is specialized in laser diodes and LEDs. We offer laser diodes in the range of 405nm up to 3.8µm and LEDs starting with 240nm up to 7.0µm. Also available: Laser Diode Modules, Optics and Drivers for laser diodes, Fiber Coupled Components, VCSEL, Photodiodes, Laserpointers, Filters, Detector Cards, TEC Elements, Laser Safety Devices. Contact: Werner Mozelt, Technical Sales Assistant, w.mozelt@roithner-laser.com; Mathias Felber, Technical Sales Assistant, m.felber@roithner-laser.com.

Rolyn Optics Co.

SPIE Corporate Member

706 Arrowgrand Cir, Covina, CA, 91722-2199
626/915-5707; fax 626/915-1379
sales@rolyn.com; www.rolyn.com
Contact: sales@rolyn.com.

RoMack, Inc.

SPIE Corporate Member

PO Box 615, Lightfoot, VA, 23090
757/258-4805; fax 757/258-4694
contact@romackfiberoptics.com; www.romackfiberoptics.com

We will be exhibiting our line of exclusively fiberoptic dip probes, and will also have on display other types of fiberoptic assemblies and components specifically tailored for spectroscopic applications. Products include: probes, fiberoptics, connectors, adapters, patchcords, bundles, arrays, collimators, couplers, tapers and filter packages. We routinely take concept to product, creating solutions for the most difficult problems. Contact: Lisa Young, Sales and Marketing Manager.

RPC Photonics, Inc.

SPIE Corporate Member

330 Clay Rd, Rochester, NY, 14623
585/272-2840; fax 585/272-2845
info@rpcphotonics.com; www.rpcphotonics.com

RPC Photonics Inc. designs and manufactures micro-optical components for illumination, displays, LED and laser systems, semiconductors, medical, military and space applications. Products include Engineered Diffusers™, beam shapers, microlens arrays and diffractive optical elements. RPC offers complete optical solutions from design to manufacturing of low-volume unique components or high-volume consumer optics in glass, polymer on glass, IR materials, injection or compression-molded polymers or films. Contact: Rose A. Peet, Contracts Manager, rpeet@RPCphotonics.com; Paul McLaughlin, Program Manager, pmclaughlin@RPCphotonics.com.

RPMC

SPIE Corporate Member

203 Joseph St, O'Fallon, MO, 63366
636/272-7227; fax 636/272-3909
rpmc@rpmclasers.com; www.rpmclasers.com

RPMC Lasers, Inc. represents laser manufactures. RPMC offers high power multimode and single mode laser diodes in wavelengths from ~635 through ~2300nm. RPMC offers a wide range of solid state lasers including picosecond ultrafast lasers, nanoseconds DPSS lasers, CW/pulsed fiber lasers, lamp pumped lasers and custom lasers. These products are suitable for applications in industrial, scientific, medical and OEM technologies including micromachining, solar processing, imaging and many more. Contact: Chuck Ratermann, President.

#228



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RESTAURANT GUIDE SPONSOR

RSoft Design Group

#1535

SPIE Corporate Member

200 Executive Blvd, Ossining, NY, 10562
914/923-2164; fax 914/923-2169
info@rsoftdesign.com; www.rsoftdesign.com

RSoft Design Group is the leader in photonics design software and serves several industries including optical communication, optoelectronics and semiconductor manufacturing. Within optical communications, RSoft is the only company to provide a full range of design, optimization and planning tools. RSoft also provides award-winning design tools for optoelectronics components and subsystems. Contact: LuAnn Scarmozzino, Carl Klinges, carl@rsoftdesign.com.

RSP Technology

#6270

Metaalpark 2, Farmsun, The Netherlands, 9936 BV
31 596 632300; fax 31 596 632678
www.rsp-technology.com

New Product: RSP Technology reduces surface roughness of optical components with 50% (less than 2 nm).

RSP Technology produces aluminium alloys for optical applications, like mirrors, moulds, housings, mounting- and gimbal-systems, with advantages for surface roughness, shape stability, strength and low thermal expansion. The meltspinning technology enables RSP to cool down materials at a speed of over 1,000,000°C per second, "freezing" the liquid alloy, with superior specifications and ultra-fine microstructure. RSA Aluminium has a surface roughness less than 2 nanometer. Contact: Roger Senden, Sales Director, rsenden@rsp-technology.com.

Rubicon Technology, Inc.

#718

9931 Franklin Ave, Franklin Park, IL, 60131
847/295-7000; fax 847/295-7555
sales@rubicon-es2.com; http://www.rubicon-es2.com

New Product: 2" ~ 8" ES2-GSA Sapphire Cores and Wafers 2" ~ 8" ES2-PSA Sapphire Epi Ready Wafers.

Rubicon Technology, Inc. is vertically-integrated and an advanced electronic materials provider that is engaged in developing, manufacturing and selling monocrystalline sapphire and other crystalline products. Rubicon applies its proprietary crystal growth technology to produce high-quality sapphire to allow volume production of various sizes and specifications. Contact: Bill Polansky, Sales Manager, bpolansky@rubicon-es2.com; Miyuki Shimabukuro, Account Manager, mshimabukuro@rubicon-es2.com.

S1 Optics GmbH

#1801

Lauterstr 18, Nuertingen, Germany, 72622
49 7022 6002 780; fax 49 7022 6002 788
sebastian.wittig@s1optics.com; www.s1optics.com

S1 Optics GmbH is a coating service provider - we develop and produce optical function layers. With optical function layers the reflection resp. transmission behavior of optical components can specifically be improved. As a service provider we do not only offer the coating as a core competence but also moreover the development of an integrated solution for light source, transmission networks and receptors. Contact: Mr. Sebastian Wittig, Product Manager, sebastian.wittig@s1optics.com.

Plan to Attend

FREE Exhibitor Product Demonstrations

Refer to pages 8-16 for complete time, schedules, and locations.

Photonics West Exhibitor Directory

Sacher Lasertechnik GmbH

#1921, 2021



Rudolf Breitscheid Str 1-5, Marburg, Germany, 35037
49 6421 305 0; fax 49 6421 305 299
contact@sacher-laser.com; www.sacher-laser.com

New Product: A new generation of high power tunable diode laser is introduced: 760nm - 1080nm up to 2500mW.

SACHER LASERTECHNIK is leading manufacturer of single mode, high power, narrow linewidth, motorized tunable diode laser systems in Littrow and Littman/Metcalf configuration. Available wavelength range from 370nm up to 2800nm with a maximum output power of 2500mW in the 780nm-1060nm regime. The product range includes benchtop laser diode controllers with GPIB USB control, wavelength lockers, reference gas cells, MOT cells, DFB, DBR laser diodes, tapered amplifiers, and AR coated laser diodes. Contact: Joachim Sacher, President, contact@sacher-laser.com; Yvonne Adams, Sales Manager, sales@sacher.us.

Saint-Gobain Crystals/ Alpine Research Optics

#434

6810 Winchester Cir, Boulder, CO, 80301
303/444-3420; fax 303/444-1686
bouldersales@saint-gobain.com; www.arocorp.com

New Product: Small aperture Ti:S crystals for miniaturized, end-pumped, ultrafast laser oscillators.

Saint-Gobain Crystals produces high performance laser crystals, optical components, thin film coatings and sapphire substrates. Laser crystals include Ti:Sapphire, Nd:YAG, Yb:YAG, CTH:YAG and ruby. The Alpine Research Optics brand of components comprises high reflection, antireflection, beamsplitter and polarization control coatings, covering the deep ultraviolet through the near infrared. Saphikon brand sapphire tubes, rods and EFG windows are primarily intended for military applications.

Salem Distributing Co.

#5059



5901 Gun Club Rd, Winston-Salem, NC, 27103
336/766-1104; fax 336/766-1119
mwillard@salemndist.com; www.salemndist.com

New Product: Suspension treated aqueous polishing slurries of finely dispersed high purity cerium oxide.

Salem Distributing offers a full line of precision optics polishing process consumables. Highlighted in this line are coolants, synthetic and natural pitches, polishing powders and slurries, pads, loose and fixed abrasives, from leading manufacturers recognized globally. Contact: Bob Carter, Precision Division Manager, bcarter@salemndist.com; John Patterson, Sales, salemndist@earthlink.net.

Salvador Imaging

#6357



5061 N 30th St, Colorado Springs, CO, 80919
719/598-6006; fax 719/598-6556
sales@salvadorimaging.com; www.salvadorimaging.com

New Product: 1280 x 960 EMCCD camera running at 50 fps for your low-light applications.

Salvador Imaging has earned a reputation for supplying low-noise, high-speed CCD, EMCCD and CMOS imaging systems to the most technically demanding customers. For over 15 years, our staff has provided innovative camera solutions for a variety of high-performance imaging applications ranging from color night vision to semiconductor, printed circuit-board and flat-panel inspection to medical imaging, laser-beam profiling and ballistic imaging. Standard products and custom designs are available. Contact: David Gardner, President, dgardner@salvadorimaging.com.

San Francisco Convention and Visitors Bureau

#5013

201 Third St, San Francisco, CA, 94121
415/227-2626; fax 415/227-2646
rweaver@sanfrancisco.travel; www.onlyinsanfrancisco.com

The San Francisco CVB welcomes SPIE in 2010! San Francisco is often called "Everybody's Favorite City," a title earned by its scenic beauty, cultural attractions, diverse communities, and world-class cuisine. Measuring 49 square miles, this very walk-able city is dotted with landmarks like the Golden Gate Bridge, cable cars, Alcatraz and the largest Chinatown in the United States. A stroll of the City's streets can lead from Union Square to North Beach to Fisherman's Wharf, with intriguing neighborhoods to explore at every turn. Views of the Pacific Ocean and San Francisco Bay are often laced with fog, creating a romantic mood in this most European of American cities.

Sandia National Laboratories

#1418

1515 Eubank SE, Albuquerque, NM, 87125-1071
505/844-2559; fax 505/284-6262
emgulli@sandia.gov; www.sandia.gov

Santec USA Corp.

#6156

433 Hackensack Ave, Hackensack, NJ, 07601
201/488-5505; fax 201/488-7702
info@santec.com; www.santec.com

Santec is a leading manufacturer of Tunable Lasers, Optical Test and Measurement Products and Advanced WDM Optical Components. Santec offers a range of tunable lasers for telecom test, OCT, sensing, optical characterization and custom applications. Test and Measurement Instruments include Benchtop Tunable Sources, Tunable Filters, Polarization Extinction Meters and Switches. Advanced Optical Components include Tap Photodetectors, Variable Optical Attenuators, WDM, CWDM, PON filters, and MEMS components. Contact: Max Chang, Eastern US Sales Engineer, max@santec.com; Jonathan Evans, Western US Sales Engineer, jonathan@santec.com.

Sarnoff Corp.

#239

201 Washington Rd, Princeton, NJ, 08543
609/734-2000; fax 609/734-2040
info@sarnoff.com; www.sarnoff.com

Sarnoff Corporation delivers vision, video and semiconductor innovations that empower clients to see/sense, understand and control complex environments. Using the latest CCD and CMOS technologies, we offer cutting-edge hardware and software solutions for image sensors and cameras, as well as wafer processing solutions that provide new capabilities to digital imaging. Contact: John Tower, Technical Director, info@sarnoff.com.

Satisloh North America Inc.

#647



N116 W18111 Morse Dr, Germantown, WI, 53022
262/255-6001; fax 262/255-6002
lori.heller@satisloh.com; www.satisloh.com

The Satisloh line includes generators, polishers, laser centering, and coating machines (with a PDS option) for all applications. A supplier of diamond wheels and pellets, spherometer rings, and spare parts, we offer a complete range of consumable products - including distribution of Mueller Diamonds and Borer Chemical ultrasonic cleaning products. Contact: Satisloh North America, Inc., lori.heller@satisloh.com; Amy Halloran, amy.halloran@satisloh.com.

Savimex

#1615

Parc d'Activités des Bois de Grasse, Grasse Cedex, France, 06131
33 4 93 70 41 31; fax 33 4 93 70 77 21
www.savimex.fr

SAVIMEX is a specialist for the design and the manufacturing of optical components in thermoplastic polymer materials (PC, PMMA, COC, COP, PEI) by injection and proposes face shields and visors for any types of helmets: Pilot helmets, fireman helmets, police helmets, soldiers, safety helmets, etc. SAVIMEX also produces safety glasses with various PC glass types = solar protection, laser protection, progressive. Contact: Laurent Coyon, Chief Executive Officer, infos@savimex.fr.

SCANLAB America, Inc.

#143

SPIE Corporate Member

2020 Calamos Ct Ste 250, Naperville, IL, 60563
630/799-1553; fax 630/799-1551
info@scanlab-america.com; www.scanlab-america.com

New Product: galvo dynAXIS XS II, iDRIVE technology, high precision intelliSCAN scan head, RTC 5 with PC 104+ bus.

Manufactures high performance galvanometer scanners and galvanometer-based scanning systems for deflection and positioning of laser beams in up to three dimensions. Offers solutions for industry, science, medicine and biomedical applications and is an OEM supplier of complete units and subassemblies. The product range includes standard and high-end scan heads (>1,200 cps), scan systems for kW-range lasers, customized systems, control electronics for on-the-fly processing and laser accessories. Contact: Dale Sabo, Vice President, d.sabo@scanlab-america.com; Andreas Engelmayer, Technical Sales, a.engelmayer@scanlab.de.

SCD-SemiConductor Devices

#6000

SPIE Corporate Member

PO Box 2250, Haifa, Israel, IL-31021
972 4 990 2535; fax 972 4 990 2627
marketing@scd.co.il; www.scd.co.il

SCD-SemiConductor Devices is a leading optoelectronic company with headquarters in Israel. Its subsidiary, SCD USA provides the business link to the US photonic community. SCD manufactures high power diode lasers with main applications in space and defense programs as well as in esthetic medicine. Contact: Shlomo Risemberg, Marketing Manager and Business Development, rismberg@scd.co.il; Marina Shkedi, Marketing Assistant, marina_p@scd.co.il.

Schneider Optics, Inc.

#438

SPIE Corporate Member

285 Oser Ave, Hauppauge, NY, 11788-3609
800/645-7239; fax 631/761-5090
industrial@schneideroptics.com; www.schneideroptics.com

New Product: The MacroVaron™ lens images on high resolution line scan cameras with as small as 5 microns pixels.

Schneider Optics designs, develops, and manufactures high performance lenses for machine vision and other image processing applications. Standard products include Compact C-mount lenses, Bilateral Telecentric lenses, a modular Macro system, large format lenses (area and line scan), 3-CCD lenses and industrial filters. Custom lens solutions are also available. Key markets include Machine Vision, Document and Parcel Scanning, Industrial Inspection, 2D/3D Metrology, Surveillance and Hyperspectral Imaging. Contact: Stuart Singer, Vice President, Industrial Optics, ssinger@schneideroptics.com; Jim Sullivan, Director of Sales and Marketing, Industrial Optics, jsullivan@schneideroptics.com.



STAIRWAY STRIPS SPONSOR

SCHOTT North America, Inc. - Advanced Optics

#809

SPIE Corporate Member

400 York Ave, Duryea, PA, 18642-2036
570/457-7485; fax 570/457-6960
info.optics@us.schott.com; www.us.schott.com

SCHOTT Advanced Optics offers a broad range of cutting-edge components and materials for optical and lithographic applications in industries such as optics, electronic, aviation, and astronomy. As a leading manufacturer of optical glass, filters, calcium fluoride crystals, fused silica LITHOSIL, ZERODUR - zero expansion glass ceramic, SCHOTT is known for its outstanding innovations, its highest product quality, its excellent expertise in metrology and reliable service. Contact: Marlene Deily, Promotions Manager, marlene.deily@us.schott.com; Steve Sokach, Director of Marketing and Sales, steve.sokach@us.schott.com.

**Plan to Attend
FREE Exhibitor Product Demonstrations**

Refer to pages 8-16 for complete time, schedules, and locations.

Photonics West Exhibitor Directory

SCHOTT North America, Inc. - Fiber Optics

#809

122 Charlton St, Southbridge, MA, 01550
508/765-9744; fax 508/765-1299
fiberoptics.southbridge@us.schott.com;
www.us.schott.com/fiberoptics

SCHOTT Fiber Optics offers customized high-tech solutions in markets such as automotive, lighting, medical, industrial, aviation and defense. By mastering glass, fibers and processes for the production of Fiber Optic components and use of LED technology, we develop outstanding, market-oriented products. With our leading technological know-how and innovative ideas we ensure the success of our customers - around the world, around the clock. Contact: Manfred Schmidt, Business Manager Medical and Industrial Products, manfred.schmidt@us.schott.com; Thea Marcoux, Marketing Specialist, thea.marcoux@us.schott.com.

Scientech, Inc.

#1306

5649 Arapahoe Ave, Boulder, CO, 80303-1332
303/444-1361; fax 303/444-9229
inst@scientech-inc.com; www.scientech-inc.com

New Product: Laser power meter system including large aperture thermal detectors.

Scientech is a USA based manufacturer of laser power and energy measurement systems. Included are thermal detector, pyroelectric detectors, photodiode detectors, large aperture calorimeters and special detectors. Meters are full featured with either RS232 or USB interfaces. Contact: Tom Campbell, Vice President.

SCIOPT Enterprises

#S1

PO Box 20637, San Jose, CA, 95160-0637
408/268-8934; fax 408/268-9050
ghsciopt@ix.netcom.com; www.sciopt.com

Scottish Development International

#1733

Atlantic Quay, 150 Broomielaw, Glasgow, United Kingdom, G2 8LU
44 141 228 2857; fax 44 141 228 2114
david.crossan@scotent.co.uk; www.sdi.co.uk

Scottish Development International (SDI) is the international arm of the lead economic development agency for Scotland and as such assists Scottish organizations to internationalize their products and services. We also provide assistance to any overseas organizations seeking to establish a physical presence in Scotland or looking for potential joint venture, licensing or agency partners. Contact: David Crossan, Head, Optoelectronics and Nanotechnology, david.crossan@scotent.co.uk.

Scottish Optoelectronics Association

#1733

Geddes House Business Centre, Kirkton N, Livingston,
United Kingdom, EH54 6GU
44 1506 497228
soa@optoelectronics.org.uk; www.optoelectronics.org.uk

SEDI Fibres Optiques

#1710

ZA St Guénault, 6 Rue Jean Mermoz, Courcouronnes,
France, 91080
33 1 69 36 64 00; fax 33 1 69 36 64 19
www.sedi-fibres.com

New Product: Hermetic Feedthrough for Ultra Vacuum environment.

Serving the special applications fiber optic market for more than 20 years SEDI Fibres Optiques offers a unique range of optical fibers and cables and manufacture components (hermetic feedthrough, High Power patchcord, coupler, WDM, filters). SEDI Fibres Optiques is a specialist of custom designed assemblies for applications including high temperature, high pressure, biocompatibility, radiation resistance, vacuum chambers, severe chemical environment, power lasers, UV, IR, PM devices, etc. Contact: Pascal Slobadzian, Export Director, slobadzian.p@sedi-fibres.com.

Seikoh Giken USA Inc.

#6503

4405 International Blvd Ste B-109, Norcross, GA, 30093
770/279-6602; fax 770/279-8839
sales@sg-usa.com; www.seikohgiken.com

New Product: Seikoh Giken introduces a highly stable 532nm 10W fiber laser for the material processing market.

Seikoh Giken Company provides precision interconnect solutions for all optical networking systems. For FTTH, our line of Splice-On Connectors allow quick, precision termination of fiber in the field. Premium patchcords, panel adapters, inline attenuators and a full line of TechMate field cleaning products - FerruleMate and HandiMate. For OEM production, we offer ferrules, connectors, high volume polishers, metallized and AR coated PM fibers and isolators. Contact: Steve Baldo, Vice President Sales and Marketing, steve.baldo@sg-usa.com; Sarah Poe, Inside Sales Manager, sarah.poe@sg-usa.com.

Seiwa Optical America Inc.

#6193

3042 Scott Blvd, Santa Clara, CA, 95054
408/844-8008; fax 408/844-8944
takashima@seiwaamerica.com; www.seiwaamerica.com

New Product: M Plan APO Objective Lenses. PE IR Lenses, Telecentric Lenses, Microscopes, Industrial Cameras

Seiwa Optical America Inc. is subsidiary of Seiwa Optical Co Ltd in Japan. We are the manufacture of High Power microscopes, Long working distance objective lenses (M. Plan APO series) and the optical system for factory automation, inspection and failure analysis. Also Seiwa is manufacturer and supplier of Exposure system for flat panel display and mark aligners for MEMS and industrial cameras. Contact: Nori Onda, Sales engineer, norionda@seiwaamerica.com; Hitomi Kimura, Sales and Marketing, hitomikimura@seiwaamerica.com.

Semrock, Inc.

#335

SPiE Corporation
Member

3625 Buffalo Rd Ste 6, Rochester, NY, 14624
585/594-7000; fax 585/594-3898
filters@semrock.com;

New Product: New notch filters: OD 6 laser-line blocking and high transmission from UV - 1600 nm.

Semrock manufactures hard-coated optical filters that set the standard for biomedical and analytical instrumentation. These include the acclaimed BrightLine™ fluorescence filters, high-performance filters for Raman spectroscopy and unique laser system optics. Semrock's innovative products are built on the latest in optical coating technology. Founded in September 2000, Semrock is based in Rochester, New York, and has offices across the country. Visit Semrock at www.semrock.com.

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SensL

#5071

SPIE Corporate Member

Lee House Riverview Business Park, Bessboro Rd, Blackrock Cork, Ireland
353 21 4350442; fax 353 21 4350447
info@sensl.com; www.sensl.com

New Product: HRMTime: Portable USB 27ps Timing module with 1-4 channels, Histogram, FIFO and TCSPC operating modes.

SensL provides low light sensing solutions to the market. We are leaders in the development of Silicon Photomultipliers and our Photon Counting and Timing detectors are complementary to this breakthrough technology. SensL products are customizable and flexible to best suit customer requirements in a variety of application areas including: Radiation Detection, Nuclear Medicine, Analytical Instruments, High Resolution Timing, POC/POU Biagnostics, Engineering Services, Education, Inspection and Telecoms. Contact us now to discuss your needs www.SensL.com.

Sensor Electronic Technology, Inc.

#6414

1195 Atlas Rd, Columbia, SC, 29209
803/647-9757; fax 803/647-9770
trae@s-et.com; www.s-et.com



PLASMA SCREEN SPONSOR

Sensors Unlimited, Inc., part of Goodrich Corporation #945

SPIE Corporate Member

3490 US Rte 1, Bldg 12, Princeton, NJ, 08540-5914
609/520-0610; fax 609/520-0638
sui_info@goodrich.com; www.sensorsinc.com

New Product: New High Speed, High Resolution InGaAs-NIR Line Scan Camera - Ideal for SD-OCT and Machine Vision apps.

Sensors Unlimited, Inc., part of Goodrich Corporation (www.sensorsinc.com) is a manufacturer of near-infrared (NIR) and shortwave infrared (SWIR) Cameras (available fully packaged or as OEM imaging modules), Linear Arrays, High-Speed Detectors and III-V 4-in. Wafer Foundry Services. Sensors' imaging products are indium gallium arsenide (InGaAs)-based, feature easy integration, use standard glass optics and require no cooling. Contact: Bob Struthers, Director, Sales and Marketing, Robert.Struthers@goodrich.com; Karen Jeffers, Marketing Communications Specialist, Karen.Jeffers@goodrich.com.

Sens-Tech Ltd.

#6816

Bury St, Ruislip, Middlesex, United Kingdom, HA4 7TA
425/277-7984
mike.avery@sens-tech.com; www.sens-tech.com

New Product: Multi-channel high voltage power supply, with software control, for use with photomultiplier tubes.

Sens-Tech Ltd, formerly Electron Tubes Ltd manufactures a comprehensive series of photomultiplier-based detector modules including models with USB and RS232 interface. Our X-ray data acquisition systems are extensively used in security, inspection, and monitoring applications throughout the world. Contact: Michael Avery, Sales Manager - USA, mike.avery@sens-tech.com.

SPIE Professional

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SenterNovem/I.O.P. Photonics Devices #6270

PO Box 93144, Den Haag, The Netherlands, 2509 AC
31 70 3735810; fax 31 70 3735100
www.senternovem.nl/iop_photonicdevices

New Product: Programme stimulates interaction between research and business. Funding is granted to projects.

Funding agency. Contact: Eddy Schipper, Program Coordinator, esc@senternovem.nl.

Servometer/PMG, LLC #6315

SPIE Corporate Member

501 Little Falls Rd, Cedar Grove, NJ, 07009-1291
973/785-4630; fax 973/785-0756
info@servometer.com; www.servometer.com

New Product: Precision integral baffled electroforms for use in Electro-Optic applications.

Servometer - PMG, LLC manufactures custom metal bellows and assemblies, bellows-type flexible shaft couplings, gold plated bellows contacts and lightweight electroforms. Servometer bellows are flexible, leak tight and can be used as springs and flexible seals. Electroforms are structurally rigid hollow metal shells that can be made with integral baffles; perfect for use as radiation or cold-shields in Electro-optical applications. Electroforms can be made with an internal optical blackening. Contact: Jim Barkand, Business Development Manager, jim@servometer.com; Ed Gajewski, Technical Support Engineer, ed@servometer.com.

Photonics West Exhibitor Directory

SESO

305 rue Louis Armand, Pôle d'Activité Aix-Les Milles - CS30504, Aix En Provence, France, 13593
33 4 42 16 85 38; fax 33 4 42 16 85 85
www.seso.com

SESO is a French company (75 people, more than 30% engineers, SME type, totally independent) involved in design, manufacturing, assembly and test of any kind of customized optical components or complete integrated optical and opto-mechanical systems. Our business is focused onto Astronomy, Space, Defense, Industry, X-Rays mirrors, High Laser Power optics. We have a special emphasis for the production of large optics (up to 2m) and particularly for aspherical components and lightened mirrors. Contact: Denis Fappani, Commercial Engineer, fappani@seso.com; Jean-Jacques Ferme, Commercial Manager, seso.marketing@orange.fr.

#6148

Sheaumann Laser Inc.

SPIE Corporate Member

140 Locke Dr, Marlborough, MA, 01752
508/970-0600; fax 508/970-0610
www.sheaumann.com

New Product: The First Commercially Available 2.94µm Single Mode Laser in a Hermetically Sealed Package, 650mW CW.

Sheaumann Laser develops and manufactures custom high power, high brightness laser modules. We offer a wide range of wavelengths from 532nm to 2940nm and many of these can be combined into a single fiber. Contact: Mayer Engel, Vice President of International Sales and Marketing, mayer@sheaumann.com; Ed McIntyre, Vice President of North American Sales, emcintyre@sheaumann.com.

#6242

sglux SolGel Technologies GmbH

Ostendstr 25, Berlin, Germany, 12459
49 30 53015211; fax 49 30 53015209
service@sglux.com; www.sglux.com

New Product: UV photodiodes with integrated controllers.

Solutions for measurement of Ultraviolet (UV) Radiation: UV controllers, UV handhelds, UV spectrometry, UV probes, UV photodiodes, UV chambers. Contact: Tilman Weiss, Director, welcome@sglux.de.

#733

Shimadzu/Kuroda Electric U.S.A.

3333 Bowers Ave Ste 151, Santa Clara, CA, 95054
408/235-8951; fax 408/235-8952
acho@kuroda-electric.com; http://www.shimadzu.com/products/opt/index/html

#6187

SGS Slicing Solutions, Inc.

SPIE Corporate Member

309 Rte 94, Columbia, NJ, 07832
908/496-8999; fax 908/496-8998
info@sgs-inc.com; www.sgs-inc.com

SGS Slicing Solutions is the exclusive North American agent for Meyer Burger AG of Switzerland. SGS offers sales, service, support, and spare parts, as well as process development for all Meyer Burger equipment. Meyer Burger is a world renowned machinery manufacturer which specializes in slicing equipment for the Semiconductor, Solar, Optical, Ceramic, Medical Imaging and other industries that need to slice hard or brittle materials. Wire, band, cropping, I.D. and O.D. saws. Contact: Rick Baarck, Sales Manager, rbaarck@sgs-inc.com.

#6164

SiC Processing USA

6949 N Cutter Cir, Portland, OR, 97127
503/345-0326; fax 503/285-5602
d.doelger@sic-processing.com; www.sic-processing.com

SiC Processing is a recycler and processor of waste silicon carbide abrasive powder and poly ethylene glycol that is used in the manufacturing of silicon wafers. Founded in 1999, SiC Processing Group are world leaders in the processing of used wire saw slurry, and have established facilities in Germany, Italy, China, Norway and the United States. Contact: Damon Doegler, President, d.doegler@sicprocessing.com.

#6164

Shanghai Optics

SPIE Corporate Member

148 Main St, Metuchen, NJ, 08840
732/321-6915; fax 732/875-0298
sales@shanghai-optics.com; www.shanghai-optics.com

New Product: Ge, ZnSe, CaF₂, MgF₂ and Silicon blanks and polished optics.

Shanghai Optics is a make to order optics manufacturer of high precision optical flats, lenses, beamsplitters, light pipes, telecom filters, plastic optics and micro optics. Materials include: Fused Silica, BK7, crystal quartz, sapphire, CaF₂, MgF₂, GaAs, Germanium, Zinc Selenide, Zinc Sulfide, Silicon and more. Contact: Brad Lewis, Director of Business Development, blewis@shanghai-optics.com.

#2013



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12830 Earhart Ave, Auburn, CA, 95602
530/885-6979; fax 530/885-1037
jstimpson@sierraoptics.com; www.sierraoptics.com

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#5114

Silian Technical Import and Export Co., Ltd. Chongqing

10/F Putian Tower, 123 Renmin Rd, Chongqing, China, 400015
86 23 6363395; fax 86 23 63621030
www.silian-tech.com

New Product: Optical Components made by sapphire material will be more clear and durable.

We are a leading manufacturer of synthetic sapphires and rubies and customized ceramics and optical components from 1960. Our high quality, competitive price and excellent service have been accepted by our vast customers. Our state-of-art technologies and equipments enable us to provide just in time delivery and small batch production. Special products and Custom design service is our expertise. We have been certified with ISO 9001-2000 Quality System. Contact: William Zhao, Project Manager, zhaoke.silian@yahoo.com.cn.

#6152



Free Popcorn

Popcorn carts will be located in the back of Exhibition Hall 3 and South Hall 1 and will be open from 11:00 am to 4:00 pm, Tuesday through Thursday.

Silios Technologies

#6249

ZI Peynier-Rousset, Rue Gaston Imbert Prolongée, Peynier, France, 13790
33 4 42 53 89 60; fax 33 4 42 53 89 59
contact@silios.fr; www.silios.com

New Product: SILIOS Technologies launches new compact customized mini-spectrometers from UV to middle-IR.

SILIOS Technologies is specialized in micro-optics, diffractive optics, miniaturized spectrometry and optical instrumentation. It has at its disposal all the necessary infrastructure to design, manufacture, test and characterize optical components and systems. It owns a 400m² clean room for production of prototypes, small and medium series. Applications: machining, scientific and medical laser to astronomy, water treatment, petrol analysis and quality control of microelectronics process. Contact: Thierry Berthou, Sales Manager, thierry.berthou@silios.fr; Stephane Tisserand, Technical Director, stephane.tisserand@silios.fr.

Sill Optics GmbH and Co., KG

#1246



Johann Hoellfritsch Str 13, Wendelstein, Germany, 90530
49 9129 9023; fax 49 9129 9023 23
info@silloptics.de; www.silloptics.de

New Product: Laser Optics, F-Theta lenses, Telecentric lenses, CCD lenses, Illumination.

Sill Optics develops and manufactures a wide range of Telecentric lenses, Illumination Systems, CCD-Lenses with C-mounts, Beamexpanders, Yag Focussing Optics and Profile Projector Lenses. Custom made Optical Systems and components for Prototypes and series. Contact: Konrad Hentschel, Research and QA Manager, konrad.hentschel@silloptics.de; Markus Klahr, Sales Manager, markus.klahr@silloptic.de.

Sinclair Manufacturing Co.

#6277

12 S Worcester St, PO Box 398, Chartley, MA, 02712
508/222-7440; fax 508/226-0517
mokeefe@sinclairmfg.com; www.sinclairmfg.com

Sinclair manufactures hermetic packages for microelectronic, fiber-optic, microwave, and optical applications. We specialize in high-quality, custom machined or stamped packages. With our state of the art CNC machining centers, precision tooling and inspection systems, we can produce your designs rapidly. Contact: Michael OKeefe, VP Marketing and Sales, mokeefe@sinclairmfg.com; Jane Koppen, Sales Associate, jkoppen@sinclairmfg.com.

Sinoceramics (USA), LLC

#6380



330 Innovation Blvd Ste 305, State College, PA, 16803
814/867-2851; fax 814/867-2853
sales@sinocera.com; www.sinocera.com

New Product: YVO₄, TeO₂, LYSO Optical Crystal.

Sinoceramics has manufactured optical components on laser optics and fiber optics since 1990. Those components are made of different kinds of material such as optical crystals, laser crystals, birefringence crystals, and optical glasses. Sinoceramics specializes in optical design, mass production, coating, and assembling. These components include the Etalon cavity, wave plate, Beam Displacer, Birefringence Wedge, PBS, etc. Contact: Jingru Zhang, VP, jingru@sinocera.com; Weicheng Chen, VP Engineer, weicheng@sinocera.com.

SIOS Messtechnik GmbH

#127

Am Vogelherd 46, Ilmenau, Germany, 98693
49 367764470; fax 49 367764478
usa@piezोजना.com; www.sios.de

SIOS develops and manufactures laser interferometric precision metrological instrumentation for measuring lengths, angles, weights, forces, pressures and vibratory motions with sub-nm precision.

Siskiyou Corp.

#1913



110 SW Booth St, Grants Pass, OR, 97526
541/479-8697; fax 541/479-3314
sales@siskiyou.com; www.siskiyou.com

Siskiyou Corporation manufactures motion control devices with manual and computer interfaced controllers, translation stages, mirror mounts, lens positioners, adjustment screws, construction hardware, fiber grippers and other opto-mechanical components for use in research and manufacturing. Siskiyou Corporation will also custom tailor devices to fit your needs. Contact: Robert Hodge, President, rshodge@siskiyou.com; Mark Mittelstaedt, Western Regional Sales Manager, mmittelstaedt@siskiyou.com.

SMA Optical Technologies, Inc.

#6093



150 Lucius Gordon Dr, West Henrietta, NY, 14586
585/214-2435; fax 585/292-6953
info@smaoptical.com; www.smaoptical.com

SMA Optical Technologies, Inc., located in Rochester, New York, provides a one-stop source for lens, illumination and optomechatronic design, prototyping, coating and manufacturing. Our designs are efficiently implemented into production with staff configured on a project-by-project basis thereby providing the most cost-effective solutions to your project requirements. Contact: Stephen Arnold, President.



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#126

61 Railroad Ave, Hallstead, PA, 18822
570/879-4992; fax 570/879-0912
info@snakecreeklasers.com; www.snakecreeklasers.com

New Product: MicroGreen™ CC module with Automatic Power Control, 532nm, 5mW.

Provides diode pumped solid-state lasers and laser modules to industrial and government organizations for numerous applications. Also conducts contract solid-state laser research and development in the areas of high-power cryogenic solid-state lasers, alexandrite lasers, near- and mid-infrared lasers, eye-safe lasers, ultrafast lasers and in laser and optical materials. Contact: Sten Tornegard, Marketing Manager, stornegard@snakecreeklasers.com.

Solid State Cooling Systems

#5089

20 Pleasant View Rd, New York, NY, 12569
845/635-5500; fax 845/635-8081
kanderson@sscooling.com; www.sscooling.com

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Photonics West Exhibitor Directory

Space Optics Research Labs., LLC (SORL) #6801



7 Stuart Rd, Chelmsford, MA, 01824-4107
978/250-8640; fax 978/256-5605
sorl@sorl.com; www.sorl.com

At SORL, we are focused on producing optics to the highest levels of precision possible. After 45 years in the optical industry, we remain the leader in producing high quality aspheric optical systems and instrumentation for a wide range of research and test applications. We also produce a wide range of reflective components and accessories that provide precise solutions to the problems of optical testing in the airborne, space-based and astronomical applications. Contact: Bob Scannell, President, bob.scannell@sorl.com.

Special Optics, Inc. #941



315 Richard Mine Rd, Wharton, NJ, 07885-1659
973/366-7289; fax 973/366-7407
sales@specialoptics.com; www.specialoptics.com

New Product: New High-Precision Vision Correction Lens System for Femtosecond Laser.

Special Optics, a Navitar company, specializes in rapidly designing, prototyping and manufacturing innovative and high-performing custom optical systems. We provide optical solutions, found in applications that demand the finest optical surfaces, highest accuracy and tightest tolerances. We also carry a complete line of "off-the-shelf" products, like F-Theta Scan Lenses and Laser Beam Expanders. With 43 years of optical expertise, Special Optics can bring your new optical concepts to realization. Contact: Steven Morales, smorales@specialoptics.com.

Specim Spectral Imaging Ltd. #6805



Teknologiantie 18 A, Oulu, Finland, 90570
358 1 04244400; fax 358 8 551 4496
info@specim.fi; www.specim.fi/index.html

SPECIM Spectral Imaging Ltd. is a world-leading provider of high performance hyperspectral imaging systems and components for ground and airborne applications in UV, VNIR, SWIR and thermal spectral ranges. We provide solutions to the most demanding applications in laboratory, field and remote sensing. Contact: Teija Pakanen, Key Account Coordinator, teija.pakanen@specim.fi; Jouni Jussila, Product Manager, jouni.jussila@specim.fi.

Spectral Instruments Inc. #1321

420 N Bonita Ave, Tucson, AZ, 85745
520/884-8821; fax 520/884-8803
info@specinst.com; www.specinst.com

New Product: Spectral Instruments latest products include a cooled 2X2 array of large format 4k backthinned CCDs.

Spectral Instruments specializes in the development and manufacture of cooled CCD cameras for demanding low-light applications. We provide the finest low noise 3σ, high sensitivity, -110C cooling, 16-bit CCD cameras that current technology can offer. Optical inputs can include windows with custom coatings through fiber optic tapers or faceplates. Readout options are designed to be flexible and customized to the application. Custom CCD designs and OEM camera production are available. Contact: Kevin Toerne, Systems Specialist, info@specinst.com; Charles Slaughter, Systems Specialist, cslaughter@specinst.com.

Spectral Systems #6092

35 Corporate Park Dr., Hopewell Junction, NY, 12522
845/896-2200; fax 845/896-2203
cguajardo@spectral-systems.com; www.spectral-systems.com

New Product: Assembly, sub-assembly service. Coatings Vis FIR. Diamond turned optics, refractive reflective.

Since 1984, Spectral Systems has been servicing the optical community with components and coatings. The company, now of 50 strong, has advanced into assembly of optical components, opto-mechanical components and complete instrumentation. Spectral Systems part or Smiths Detection, staffs six manufacturing engineers that can aid in taking the Research and Development product to a production line. Contact: Carlos Guajardo, Sales Manager, cguajardo@spectral-systems.com; Frank Wesley, Engineering Manager, fwesley@spectral-systems.com.

Spectra-Mat, Inc. #238

100 Westgate Dr, Watsonville, CA, 95076
831/722-4116; fax 831/722-4172
sales@spectramat.com; www.spectramat.com

New Product: CTE-Matched Microchannel Coolers.

SPECTRA-MAT, INC. specializes in wafer and chip level thermal management solutions for optoelectronic packaging applications. Incorporating our unique metal-matrix materials, we manufacture submounts, carriers, microchannel coolers and substrates with low CTE and excellent thermal conductivity. Optimal thermal performance can be achieved with our proprietary CTE-matched liquid-cooled designs. Our lithography grade wafer scale substrates are available up to 150mm diameter. Contact: Sandra Petznick, Marketing Manager, smi_sales@saes-group.com; Jim Abendschan, CEO, smi_engineering@saes-group.com.

Spectra—Physics/A division of Newport Corporation #817



1335 Terra Bella Ave, Mountain View, CA, 94043
650/961-2550; fax 650/968-5215
sales@newport.com; www.spectra-physics.com

New Product: Newport Fiber Laser.

At Newport we believe that the best way to enhance life and fuel discovery is to support experts, by being experts. As a global company, we draw upon expertise from around the world to deliver knowledge and solutions that make manage and measure light. Combined with the expertise from Spectra-Physics Lasers, Oriel Instruments, Richardson Gratings and Corion Fluorescence Filters, we partner with scientists, engineers, and OEMs to provide them with solutions that help make a world of difference. Contact: Keith McCurdy, 650-966-5473, keith.mccurdy@spectra-physics.com.

Spectrogon US Inc. #131



24B Hill Rd, Parsippany, NJ, 07054
973/331-1191; fax 973/331-1373
sales.us@spectrogonus.com; www.spectrogon.com

SPECTROGON specializes in the design and manufacture of optical filters, thin film coatings and components, for analytical, medical and scientific instruments. Spectrogon is the world leader in the manufacture and design of Holographic Diffractions Gratings for laser Compression/Stretch applications, tuning and spectroscopic instruments. Spectrogon offers a huge inventory of stock filters, (website: www.spectrogon.com), that can be shipped within two weeks. Contact: Kelly Koerber, Sales Administrator; Sam Ponzio, Sales Manager.



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Photonics West 2009

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Convention Center, Booth 1801

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Spectrolab, Inc.

#6300

12500 Gladstone Ave, Sylmar, CA, 91342
818/365-4611; fax 818/838 -7474
www.spectrolab.com

New Product: InGaAs APD Sensor Chip Assemblies InGaAs APD GM-mode Camera.

Spectrolab offers high performance and reliable sensor products for the infrared imaging and photon counting markets. We offer a variety of packaging options and all detectors can be packaged according to customer's specifications. We offer low-noise InGaAs APD arrays, 32 x 32 APD Geiger mode sensor chip assemblies and LADAR camera for active infrared imaging applications and low-noise InGaAs PIN arrays for night vision applications. We also offer custom design APD arrays and packages. Contact: Rengarajan Sudharsanan, Director, Sensor Products, rsudharsanan@spectrolab.com; Dorothea Taylor, Marketing Assistant, dtaylor@spectrolab.com.

Spectroscopy Magazine

#6257

485F US Highway 1S Ste 100, Iselin, NJ, 08830-3009
732/596-0276; fax 732/596-0003
spectroscopyedit@advanstar.com;
www.spectroscopyonline.com

Spectroscopy, with an audited circulation of 24,300, is the only publication dedicated exclusively to the spectroscopic sciences, providing peer-reviewed technical and applications-oriented information to the largest audited circulation of influential spectroscopists in the United States. Its focus is on cutting-edge techniques like Raman, X-ray, MS, ICP-MS, FT-IR and the multitude of other hyphenated techniques. Contact: Ed Fantuzzi, Publisher, efantuzzi@advanstar.com; Stephanie Shaffer, East Coast Sales Representative, sshaffer@advanstar.com.

Spectrum Detector Inc.

#6198



5825 Jean Road Center, Lake Oswego, OR, 97035
503/697-1870; fax 503/697-0633
info@spectrumdetector.com; www.spectrumdetector.com

New Product: Fast, accurate, mach 5, 100 kHz Digital Joulemeter.

Design and manufacture Optical Power Meters, Laser Energy Meters, Pyroelectric Radiometers, Pyroelectric Hybrid Detectors, THz Sensors and Optical TRAP Detector Standards. Leading supplier of custom detectors, electronics and optical instruments. Measure from pW to W, fJ to J, 1 to 100,000 pps and from DUV to Far IR and THz. Stop by our booth for demo of mach 5! Contact: Don Dooley, President, dond@spectrumdetector.com.

Spectrum Microwave Inc.

#6372

165 Cedar Hill St, Marlboro, MA, 01752
508/485-0350; fax 508/485-6158
RichardP@spectrummicrowave.com; www.spectrummicrowave.com

Thin Film - A core capability of Spectrum Microwave Inc. Marlborough Operations is our internal thin film manufacturing. We offer a complete line of precision resistor chips, attenuators, networks, and metalized substrates. Various base materials such as alumina, aluminum nitride, BeO, quartz, ferrite and silicon are available with fine lines, wraps, plated through holes, and solid vias. LASER DIODE SUBMOUNTS with pre-deposited AuSn are available for your custom application. Contact: Paul Richard, Sales Mgr. Passive Components, richardp@spectrummicrowave.com.

Spectrum Scientific, Inc.

#6025

16692-A Hale Ave, Irvine, CA, 92630
949/260-9900; fax 949/260-9902
www.ssiptics.com

New Product: Hollow Cube Retroreflectors -90 Degree Off-Axis Parabolas -Spectrometer UV470.

SSI Manufacturers precision holographic diffraction gratings and other diffractive optics. Precision replication of gratings including concave, polished mirrors, off-axis parabolic mirrors, hollow cube retroreflectors, spectrometers, and nanostructures. SSI's proprietary technique ensures the highest efficiency coupled with the lowest stray light. Our High volume manufacturing process combined with rapid prototyping allows for short lead times, superior wavefront and superb surface quality. Contact: Sales Department, info@ssiipitics.com; sales@ssiipitics.com.

Spectrum Thin Films Corp.

#316



135 Marcus Blvd, Hauppauge, NY, 11788
631/901-1010; fax 631/236-4309
info@spectrumthinfilms.com; www.spectrumthinfilms.com

An ISO 9001:2000 certified company - Manufacturing high quality optics and optical coatings. Routinely produces high technology optical coatings for the laser industry, government, research organizations, and optical manufacturing industry. Our line of optical coatings range from simple cost-effective coatings to complex state-of-the-art coatings. Contact: Harry Sudwischer, Technical Sales, Harry@spectrumtf.com.

Sperian Protection

#2014

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401/757-2298; fax 401/757-2912
mmclear@sperianprotection.com; www.sperianprotection.com

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Sperian is the new name for Glendale, the worldwide leader in laser eyewear and patient eye shields. Please visit us or review our new products - the improved LightSpeed II, I-Block-II and our innovative Sperian Milan laser eyewear. Contact: Mark McLearn - 401-757-2298 or 401-225-7038 cell, Sales and Marketing Manager, Glendale, mmclear@sperianprotection.com; Sameet Rajguru, Product Manager, Sraiguru@sperianprotection.com.



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SPETA-Singapore Precision Engineering and Tooling Association

#6388

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SPETA is a non-profit association representing companies engaged in the manufacturing and supply of Moulds and dies, jigs and fixtures, metal stamping, metal casting, plastic and rubber mouldings, precision Machining, as well as companies providing services related to the electronics and precision engineering industry.

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E-mail: cioe@cioe.cn
Contact:
Nancy He Tel: +86 755 8629 0819
Shirly Yi Tel: +86 755 8629 0891

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Photonics West Exhibitor Directory

SphereOptics LLC



One Horseshoe Pond Ln, Concord, NH, 03301
603/715-3000; fax 603/225-3089
sales@sphereoptics.com; www.sphereoptics.com

New Product: Vacuum Compatible Radiance Source Systems.

SphereOptics designs, produces and sells precision standard and custom radiometric and photometric products for the aerospace, automotive, electronic imaging, laser diode, LED, lighting, medical imaging and optics industries. We offer a broad line of integrating spheres, light measurement systems and instruments, diffuse reflectance materials and standards and superior optical calibration services. Contact: Chris Durell, VP Sales, cdurell@sphereoptics.com; Sid Rane, Eastern Regional Sales Manager, srane@sphereoptics.com.

SPI Lasers plc

#6232

3 Wellington Park, Tollbar Way Hedge End, Southampton, United Kingdom, SO30 2QU
44 1489 779 696; fax 44 1489 779 698
sales@spilasers.com; www.spilasers.com

New Product: SPI Lasers 400W and G3 Laser, applications: defense, micro-machining, cutting, welding, marking and medical.

SPI Lasers is a leading designer and manufacturer of fiber lasers; maintaining a world-wide presence and has assisted customers with the use of fiber laser technology in many applications including defense communications, directed energy, sensors, micro-machining, marking, cutting, welding and medical. SPI Lasers' updated product platforms feature best-in-class flexibility, stability and reliability. SPI Lasers offers a free 30 day trial program to allow your own in house evaluation. Contact: John Tinson, Vice President of Sales, sales@spilasers.com; Ken Dzurko, General Manager, Ken.Dzurko@spilasers.com.

Spica Technologies, Inc.

#1040

18 Clinton Dr #3, Hollis, NH, 03049
603/882-8233; fax 603/882-8614
sales@spicatech.com; www.spicatech.com

Spica Technologies provides a variety of test and measurement services to the manufacturers and end users of optical components. In addition to our laser damage test capabilities, Spica also maintains a broad range of optical test services including optical density measurements, laser based reflection measurements, environmental exposure, surface roughness and flatness.

SPIEWORKS

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360/676-3290; fax 360/647-1445
info@spieworks.com; www.spieworks.com

Exhibition Level, Almaden Concourse near the Hilton Hotel Entrance

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SRICO, Inc.

#6054



2724 Sawbury Blvd, Columbus, OH, 43235
614/799-0664; fax 614/799-2116
sri@srico.com; www.srico.com

Srico specializes in ferroelectric LiNbO₃ and LiTaO₃ materials and devices. Products are optical modulators; PPLN devices; frequency converters; electric field and voltage sensors; fiber optic links and innovative ferroelectric platforms. Srico provides research and development, custom product design and fabrication services. Contact: Sri Sriram, President and Chief Executive Officer, sri@srico.com; Judith Sriram, Vice President Business Development, judith@srico.com.

SSCP USA

#6303

400 Atrium Dr #151N, Somerset, NJ, 08873
732/271-0350; fax 732/271-0360
timothyelark@sscpcorp.com; www.sscpusa.com

New Product: PC 363 - Ultra low index material for cladding optical fibers. NA = 0.50 on silica fibers.

SSCP manufactures optical fiber coatings, adhesives, and resins for polymer waveguides. Both standard UV curable primary and secondary coatings, buffers, ink and acrylate matrix for ribbons are made, as well as special purpose coatings for high optical power (including fiber lasers) and high temperature applications. Products include low index polymer claddings, allowing NAs up to 0.50, and high glass transition temperature secondary. Adhesives include low and high index, low loss materials. Contact: Timothy Clark, Sales and Marketing Director, timothyelark@sscpcorp.com.

Standa

#1445

PO Box 377, Vilnius, Lithuania, 03012
370 5 2651474; fax 370 5 2651483
sales@standa.lt; www.standa.lt

Standa is best known for our wide variety of motorized positioners and motor controllers with software and our high quality precision mechanics for OEM's and researchers. Standa also produces picosecond micro lasers, peak power up to 200 kW, pulse duration up to 120 kHz and M²<1.2. These lasers are optimal for micro-machining, spectroscopy and seeding high-energy fiber lasers. Contact: Michail Berba, President, Lucian Hand, President, Altos Photonics.

LENS EXPO 2009

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Fax +81 3 5229-7253 E-mail: intl@optronics.co.jp <http://www.optronics.co.jp>

Photonics West Exhibitor Directory

Stanford Computer Optics, Inc.

#2033



780 Cragmont Ave, Berkeley, CA, 94708
510/527-3516; fax 510/558-9582
info@stanfordcomputeroptics.com;
www.stanfordcomputeroptics.com

New Product: XXRapidFrame multiple framing system, gating time 0.2ns-DC, 100.000.000.000fps, USB.

Analog or digital intensified CCD cameras. High-speed, ultra-fast gated (0.2ns), intensified cameras with nanoLux sensitivity and high rep rate (200kHz continuous, 3.3MHz or 300ns burst). Video imaging spectroscopy software for complex data acquisition, time-resolved spectroscopy and pixel-by-pixel image analysis using SCO 4Picos/4QuikE/XXRapidFrame. Sensitivity of 1count/1photoelectron/pixel w/0.2ns gate time. MCP and diode image intensifiers and low-light cameras. Contact: Erika Schlueter, General Manager; Paul Hoess, President.

Stanford Photonics, Inc.

#6160

1032 Elwell Ct Ste 104, Palo Alto, CA, 94303
650/969-5991; fax 650/969-5993
info@stanfordphotonics.com; www.stanfordphotonics.com
Stanford Photonics, Inc. designs and manufactures digital CCD and Image Intensified (ICCD) cameras for photon-limited life science imaging applications. Mega-pixel resolution and frame rates of 30 to 1000 frames per second are supported by SPI's proprietary image acquisition and RAID-based streaming software. SPI also provides advanced platforms/integrated systems for TIRF, single molecule and single photon/ultra low light luciferase and bioluminescence imaging. Contact: Michael Buchin, President, Steve Herlick, Sales Engineer.

Stanford Research Systems, Inc.

#1234

1290-D Reamwood Ave, Sunnyvale, CA, 94089
408/744-9040; fax 408/744-9049
info@thinkrs.com; www.thinkrs.com
Stanford Research Systems manufactures a full line of scientific and engineering test instruments, including lock-in amplifiers, digital delay/pulse generators, photon counters, preamplifiers, optical chopper, small instrumentation modules, laser diode controller, optical shutter system, high voltage power supplies, synthesized clock generator, FFT spectrum analyzers, boxcar averagers, function generators, time interval/frequency counters, filters, LCR meters, thermocouple monitors, residual gas analyzers, ion gauge controllers, etc. Contact: Janie Du, Sales Engineer, janied@thinkSRS.com; Dave Ames, Sales Manager, davea@thinkrs.com.

Star Tech Instruments

#124



1 Brush Hill Rd, New Fairfield, CT, 06812
203/312-0767
info@startechinstruments.com; www.startechinst.com
Star Tech Instruments manufactures energy probes, imaging systems and position sensors for the DUV spectral band. Contact: Bill Fricke, tatzten@att.net.



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Steinmeyer, Inc.

#6206

217 Middlesex Tpke, Burlington, MA, 01803
781/273-6220; fax 781/273-6602
jskaltsas@steinmeyer.com; www.steinmeyer.com

Steinmeyer has been manufacturing precision ground ball screws since 1965. Our FMD division designs and manufactures a complete line of linear, rotary and goniometer stages with drives and controls. Drive options include Steinmeyer ball screws coupled to either stepper or dc servo motors. For higher performance, three linear motors are available - iron core, ironless or piezo. The stages offer some of the lowest run out accuracies available while still using mechanical linear bearings. Contact: John Skaltsas, Marketing/Sales, jskaltsas@steinmeyer.com; George Jaffe, Executive VP, gjaffe@steinmeyer.com.

Stellar Industries Corp.

#442

50 Howe Ave, Millbury, MA, 01527
508/865-1668; fax 508/865-5016
sales@stellarind.com; www.stellarind.com

New Product: Copper plate up with dead sharp edges for p-side down mounting.

Stellar Industries Corp. now offers planarized; copper plate up submounts with extremely dead sharp edges for p-side down diode mounting. Excellent thermal transfer with no light transmission interference. Contact: John B. Snook, Vice President, snooky@stellarind.com; Eric W. Brown, Sales, ericb@stellarind.com.

StellarNet, Inc.

#2029



14390 Carlson Cir, Tampa, FL, 33626
813/855-8687; fax 813/855-0394
www.stellarnet.us

New Product: Miniature BLUE-Wave spectrometers are ruggedized low cost 16-bit light measurement instruments.

StellarNet manufactures ruggedized miniature fiber optic spectrometers. The instruments are extremely robust for light measurement delivering high S/N performance at a surprisingly low cost. The SpectraWiz software is included FREE with each instrument to enable comprehensive LED and a multitude of other light and optical measurements via NIST traceable calibrations. Visit www.StellarNet-Inc.com. Contact: Ryan Flaherty, Principal Application Scientist, Ryan@StellarNet.us; Michelle Ritchie, Application Scientist, Michelle@StellarNet.us.

Stemmerich, Inc.

#6184



4728 Gravois Ave, St. Louis, MO, 63116
314/832-7726; fax 314/832-7799
www.stemmerich.com

Stemmerich offers specialty flat glass, tubing and rod for Display, Optical, Electronic and Industrial applications. Complex configurations, precision surface finishes and edge profiles. Research and Development, pilot and production run quantities with quick on-time deliveries. Contact: Colleen Weber, colleenweber@stemmerich.com; Greg Koob, Gkoob@stemmerich.com.

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StockerYale, Inc.

#1621



32 Hampshire Rd, Salem, NH, 03079-4204
603/893-8778; fax 603/893-5604
sales@stockeryale.com; www.stockeryale.com

New Product: ColdRay: Temperature-stabilized laser resulting in excellent wavelength, power and pointing stability.

An independent designer and manufacturer of structured light lasers, LED modules and fluorescent illumination products, as well as phase masks and specialty optical fibers for use in a wide range of markets and industries including machine vision, industrial inspection, telecommunications, military, utilities and medical. Contact: Sales, Sales Engineer, lasers@stockeryale.com.

Strasbaugh

#3000

825 Buckley Rd, San Luis Obispo, CA, 93401
805/541-6424; fax 805/541-6425
info@strasbaugh.com; www.strasbaugh.com

Strasbaugh is a leading provider of innovative precision surfacing equipment to the global Semiconductor, Precision Optics, Silicon, LED, and Telecom industries. From prime wafer polishing and chemical-mechanical planarization systems to advanced wafer grinding tools, Strasbaugh has built a reputation as a world-class manufacturer of precise, reliable optical and semiconductor polishing and grinding solutions. Strasbaugh has delivered over 16,000 machine products worldwide since 1948. Contact: Gerard Pardeilhan, Optics Product Manager, optix@earthlink.net; Scott Riedinger, Worldwide Optics Sales, sriedinger@strasbaugh.com.

Sumipro

#6270

Bedrijvenpark Twente 323, Almelo, The Netherlands, 7602 KL
31 546 814141; fax 31 546 811479
info@sumipro.nl; www.sumipro.nl

New Product: Wide range of high durable coatings for optical polymers complying with various MIL specs.

Sumipro specializes in the manufacturing of high precision optics. Aspherical and diffractive lenses in optical grade polymers and in Ge/Si for night vision systems; mirrors for laser applications and aerospace programs; aspherical and toric inserts for moulds for high volume markets and medical industry. By means of diamond turning we realize these optical components with reproducible high accuracies. Besides, Sumipro offers you design, engineering and rapid prototyping of your optical parts. Contact: Hette Elgersma, Marketing and Sales Manager, h.elgersma@sumipro.nl; Remco Couwenberg, Sales Support Manager, r.couwenberg@sumipro.nl.

Sumitomo Metal Mining Co. Ltd.

#6507

Electronics Division, Communication Materials and Devices Group, 6-1 Suehiro-cho 1-chome, Ome-shi Tokyo, Japan, 198-8601
81 428 31 1951; fax 81 428 32 0252
tetsuya_nakamura@ni.smm.co.jp; www.smm.co.jp

New Product: Isolators for fiber laser with characteristics of high isolation, low insertion loss and PDL.

Sumitomo Metal Mining Co., Ltd. (SMM) is the leading company providing optical isolators to Telco and Non-Telco devices. SMM's optical isolators provide optical device designers high flexibilities and reliabilities compliant with industrial standards. Contact: Tetsuya Nakamura, Senior Marketing Manager, Tetsuya_Nakamura@ni.smm.co.jp.

Sunex Inc.

#6189

5963 La Place Ct Ste 309, Carlsbad, CA, 92008
760/602-0988; fax 760/602-0681
sales@sunex.com; www.sunex.com

New Product: DSL315: Fisheye lens full FOV of 190° for 1/2.5" 5 to 10 Mpixel sensors. Std M12x0.5 board-mount.

Sunex Inc. designs, manufactures and markets digital imaging optical lenses for challenging and demanding applications for the automotive, security, visual communication, industrial and medical markets. Other products produced include optical low pass filters [OLPF] and IR-Cutoff filters. The Company is headquartered in Carlsbad, CA, USA with manufacturing in Shanghai, China. Contact: Francois Pelletier, Director, Sales and Marketing, francois.pelletier@sunex.com; Sales Manager, sales@sunex.com.

Super Optronics Inc.

#323



15900 Crenshaw Blvd #G346, Gardena, CA, 90249
310/516-9082; fax 310/965-0029
contact@superoptronics.com; www.superoptronics.com

New Product: PPLN, LBO Ovens and Temperature Controller Crystals, Ovens and SHG systems.

Non-linear crystals: BBO, KTP, CLBO, KD*P, LiNbO₃, LiIO₃, AgGaSe₂ and more for SHG, SFG, DFG and OPO. PPLN Oven and Temperature controller. Ultra-thin crystal for autocorrelator, etc. Laser crystals: YAG, YLF, YAP, YVO₄, Ti:Sa, NYAB etc. Photorefractive crystals: BaTiO₃, SBN, BSO, Fe:LN, etc. Crystal repair, polishing and coating service. Award-winning wavelength conversion systems for fs, ps, ns Ti:Sa and other lasers.



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SUSS MicroOptics SA

#6167

Rue Jacquet-Droz 7, Neuchatel, Switzerland, 2000
41 32 720 5104; fax 41 32 720 5713
info@suss.ch; http://www.suss.ch

New Product: 2D random diffuser, linear diffuser, concave microlenses.

SUSS MicroOptics is a leading company for high-quality refractive and diffractive micro-optics. SUSS MicroOptics comprises profound experience in optical design, micro-fabrication and metrology. We use leading edge manufacturing techniques, based on 200mm wafer technology in Quartz and Silicon. Our micro-optical components meet highest demands as required for semiconductor applications, medical applications, laser materials processing, optical networking and metrology. Contact: Kristina Schulz, Sales and Marketing Manager, schulz@suss.ch; Juergen Rieck, Sales Engineer, rieck@suss.ch.

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www.photonics.ca

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Sutter Instrument Co.

SPIE Corporate Member

One Digital Dr, Novato, CA, 94949
415/883-0128; fax 408/883-0572
info@sutter.com; www.sutter.com

New Product: The Lambda XL is a broad spectrum, highly stable light source with a bulb life of 15,000 hours.

Sutter Instrument is a leading manufacturer of precision electromechanical instrumentation for scientific research and industry. Products include optical filter wheels, filter switchers, xenon and extended life light sources, the stepper-motor controlled SmartShutter, and motorized X-Y translator. Our P-2000 is the premier NSOM fiber tip puller. With extensive motor control and CNC machining experience, we are able to design and deliver versatile, robust optical products at affordable prices. Contact: Jack Belgum, Ph.D., Senior VP, Research and Development, jack@sutter.com; Alex Cooper, Director, Sales and Marketing, alex@sutter.com.

Swamp Optics, LLC

#3034

6300 Powers Ferry Rd Ste 600-345, Atlanta, GA, 30339
404/547-9267; fax 866/855-4518
linda.trebino@swampoptics.com; www.swampoptics.com

New Product: BOA pulse compressor with one prism more accurate, compact and inexpensive.

Swamp Optics offers compact, convenient devices for completely measuring ultrashort laser pulses in real time. We also offer custom devices for nearly every pulse-measurement problem and we recently introduced a compact pulse compressor automatically free of distortions and very inexpensive. Awards include R&D100 and Circle of Excellence. Contact: Linda Trebino, Co-Founder and Member, Linda.Trebino@SwampOptics.com; Support, SUPPORT@SwampOptics.com.

Swift Glass Co.

#6098A

PO Box 879, 131 W 22nd St, Elmira Heights, NY, 14903
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quality@swiftglass.com; www.swiftglass.com

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Swiss Jewel Co.

#6089

325 Chestnut St Ste 509, Philadelphia, PA, 19066
215/925-2867; fax 215/922-3055
sales@swissjewel.com; www.swissjewel.com

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SwissOptic AG

#1635

Heirich-Wild-Str, Heerbrugg, Switzerland, CH-9435
41 71727 3074; fax 41 71727 4686
swissoptic@swissoptic.com; www.swissoptic.com

Swiss Optic, a BERLINER GLAS GROUP company, offers a broad variety of precision thin-film coated optical components, electro-optical and opto-mechanical assemblies and optical systems from design to series production. The range of services comprises the whole process chain including clean room environment and individual measurement set-ups. Contact: Fred Doss, Sales Manager Precision Optics, fdoss@berlinerglas.com; Matthias Zimmermann, Sales and Marketing Manager, matthias.zimmermann@swissoptic.com.

Sydor Instruments LLC

#334

31 Jet View Dr, Rochester, NY, 14624
585/278-1168; fax 585/278-1169
www.sydorinstruments.com

New Product: Ultrafast X-Ray Vacuum CCD Framing Camera and 8GHz Laser Optical Comb Generator.

Sydor Instruments is a comprehensive diagnostics solutions provider. We provide our customers with custom diagnostics and ultra fast imaging systems for a variety of applications in science and industry. We specialize in streak cameras and single photon detectors where the highest resolution and accuracy is required. Contact: Michael Pavia, President, pavias@sydorinstruments.com.

Sydor Optics, Inc.

#334

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Symphotic TII Corp.

#6509

880 Calle Plano Unit K, Camarillo, CA, 93012
805/484-6639; fax 805/484-9012
info@symphotic.com; www.symphotic.com

New Product: The Nanofinder Flex: a compact, easy to operate but powerful confocal Raman microscope system.

Symphotic TII Corporation offers high quality Nd:YAG lasers, tunable Ti:Sapphire lasers and optical parametric oscillators (OPOs). We also have the highest performance specifications available for Confocal Raman Spectroscopy in our Nanofinder 30 and our newest Nanofinder Flex. We also offer high performance bench top and field Raman systems. Visit our booth or www.symphotic.com to discuss our radiation tolerant camera products. Contact: Jack Roberts, President, info@symphotic.com.

Synova SA

#6162

Chemin de la Dent d'Oche, Ecublens, Switzerland, 1024
41 21 694 35 00; fax 41 21 694 35 01
info@synova.ch; www.synova.ch

Synova manufactures high-precision laser cutting systems based on the water jet-guided laser technology (Laser MicroJet®) for the semiconductor, electronic, automotive, solar, flat panel display (FPD) and medical industries. Superior accuracy, cutting speed and flexibility improvements in numerous precision manufacturing processes are achieved while avoiding thermal damage and mechanical stress. Contact: Alex Schreiner, Sales Manager USA West, schreiner@synova-usa.com.



Photonic Industries

International, Inc.

The Pioneer of Intra-Cavity Solid-State Harmonic Lasers

IR, GREEN, UV & DEEP UV LASERS

HIGH POWER



- Nano or Pico Second Pulse Width
- IR 1064/1053nm - 5W to 400W
- Green 532/527nm - 5W to 150W
- UV 355/351nm - 3W to 40W
- Deep UV 266/263nm - 1W to 10W
- TEM₀₀ Beam with $M^2 < 1.1$ or Multimode
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- Choice of Nd:YLF, Nd:YAG and Nd:YVO₄ Lasers

AIR-COOLED



- Nano or Pico Second Pulse Width
- IR 1064/1053nm - 200mW to 10W
- Green 532/527nm - 200mW to 8W
- UV 355/351nm - 75mW to 3W
- Deep UV 266/263nm - 20mW to 0.5W
- TEM₀₀ Beam with $M^2 < 1.1$
- Pulse Rates from Single Shot to 80MHz
- Patented Harmonic Generation Technology
- Choice of Nd:YLF, Nd:YAG, and Nd:YVO₄ Lasers

TUNABLE LASERS

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2.2um to 3.4um (idler)
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- Output Power up to 2 Watts
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- Highest Conversion Efficiency OPO
- Compact, Rugged Design
- Pulse Rates from Single Shot to 10kHz

OPO



- Narrow Bandwidth 1GHz to 3GHz, SLM Option
- mJ Level Energy/Pulse, Tuning from 700nm to 960nm, Harmonic from 193nm to 500nm
- High Repetition Rate up to 10kHz
- Wavelength Scanning (100MHz/step)
- Multipass Amplifier to Watts Level UV Output
- TEM₀₀ Beam with $M^2 < 1.1$
- Compact Single Box Design
- Typical Pulse Widths 10ns to 50ns

Ti:SAPPHIRE



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Hybrid solutions that push the polymer envelope. Syntec Optics is the largest independent custom manufacturer of precision plastic optics in the United States. Capabilities consist of optical and mechanical design, including optics that combine polymer and glass; optical and opaque mold building; including fixture tooling; single-point diamond turning, including HRDT™ for high refraction, high thermal optics and also plano polishing. Fully integrated custom metrology and assembly services. Contact: Paul Tolley, Vice President/General Manager, ptolley@syntecoptics.com.

T&C Plastic Moulding Pte Ltd.

#6379

Block 3015-A Ubi Rd 1 #01-10/11/13 #04-10/11, Kampong Ubi Industrial Estate, Singapore, Singapore, 408705
65 5744 6912; fax 65 6744 6994
sales@tncplastic.com; www.tncplastic.com

New Product: Our injection and Compression Technique going for low molding cycle on thick lens, low Injection stress (low birefringence) with our efficiency we can help our customers to lower manufacturing cost.

T and C is founded in year 2000, a solutions partner in polymer components mainly in engineering of plastic manufacturing. To date, we supply our parts to the leading companies or product's manufacturers all over the world. We strive to grow our company together with our customers and valued supplier to continue support the on-going challenges with our expertise and competitiveness. T and C is in alliance with Wangi Industrial and Delta Optics Technologies (both are Singapore Based companies) and offers full spectrum of optics manufacturing services to the industries. Contact: Sy Wong, Director, Sales and Marketing, sywong@tncplastic.com; Mr. Andy Tan Wah Yeow, Director, Managing, andytan@tncplastic.com.

Taboada Research Instruments, Inc.

#5076

SPIE Corporate Member

1923 N New Braunfels, San Antonio, TX, 78208
210/224-8876; fax 210/224-8834
info@taboada.com; www.taboada.com

New Product: Digital Computer-Controlled Stimulus Pattern Projector for In-vitro Tissue Studies.

Taboada Research Instruments, Inc. was founded in 1999 and specializes in custom research, robotic, and optical instruments. TRI sells laser plane generators and structured light ribbons, both with no moving parts, for various applications. TRI provides novel optical mounts that can accommodate optics having a wide range of diameters. TRI also designs and manufactures Q-switch modifications for high powered Er glass lasers. To this day, TRI remains focused on Advancement Through Innovation. Contact: John M. Taboada, Vice President, jm@taboada.com; John Taboada, President, j@taboada.com.



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TATSUTA ELECTRIC WIRE and CABLE CO., LTD.

#5131

Nihonseimei Bldg 3F, 1-1, Minami-machi, Kawasaki-ku, Kawasaki-City Kanagawa, Japan, 210-0015
81 44 221 7692; fax 81 44 221 7695
telecom-sales@tatsuta.co.jp; www.tatsuta.co.jp/en/index.html

New Product: 0.36cc RGB combiner: Tiny volume inline RGB combiner of single mode fiber.

TATSUTA ELECTRIC WIRE and CABLE CO., LTD., a manufacturer of inline optical components for bio-medical, sensing, industrial and high speed communication applications. TATSUTA offers visible, IR and telecommunication wavelength combining or splitting devices, with or without polarization maintained status, based on original fiber coupling technology. TATSUTA also offers various kind of FBGs covers 470-2200nm range. TATSUTA explores the new field of the light with advanced technology. Contact: Yohei Takahashi, Assistant Manager, youhei-takahashi@tatsuta.co.jp; Keiichiro Hirose, Assistant Manager, hirose@tatsuta.co.jp.

TDK-Lambda Americas Inc.

#6308

High Power Division, 405 Essex Rd, Neptune, NJ, 07753
732/922-9300; fax 732/922-1441
http://www.us.tdk-lambda.com/hp

Lambda High Power is a leading manufacturer of programmable AC to DC high current, high voltage and capacitor charging power supplies. Standard models feature output voltages from 6 to 50,000V and currents from 1.6 to 3,000A at power levels from 200W to 90kW in a single package. Our highly experienced in-house design team allows Lambda to design and deliver custom power solutions to meet the most demanding application needs. Contact: Andy Tydeman, High Voltage Product Manager, andy.tydeman@lambda.com; Steve Hopkins, Global Sales, High Voltage, steve.hopkins@lambda.com.

TEC Microsystems GmbH

#1801

Schwarzschildstr 3, Berlin, Germany, 12489
49 30 6789 3314; fax 49 30 6789 3315
info@tec-microsystems.com; www.tec-microsystems.com

New Product: Thermoelectric sub-assemblies, TE micro modules in various packages.

TEC Microsystems GmbH, founded in 2007, is a growing company that is offering standard and custom thermoelectric cooling solutions for laser and optoelectronic applications. We are committed to provide maximum service to our customers, especially focus on delivery reliability, securing high-quality of the products and good communication. Contact: Alexander Hoferichter, CEO, info@tec-microsystems.com.

tec5USA

#426

SPIE Corporate Member

80 Skyline Dr, Plainview, NY, 11803
516/653-2000; fax 516/939-0555
info@tec5USA.com; www.tec5USA.com

New Product: High-Quality Electronics for Hamamatsu S9840 Back-Thinned CCD Array.

High-quality products for spectroscopy, light sources, light guides, fiber-optic switches and probes, spectrometer modules, operating electronics. (Multi-channel) spectrometer systems for multiple applications in lab or process, e.g. concentration, filter transmission, color, thin film thickness. Optical instrumentation as remote control biomass detection systems. Various soft-ware support. Custom designed components and systems. Contact: Gert Noll, General Manager, gert.noll@tec5usa.com; Dileep Mathew, Technical Support Engineer, dileep.mathew@tec5usa.com.

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Techmetals, Inc.

#6370



345 Springfield St, Dayton, OH, 45403
937/253-5311; fax 937/253-5096
info@techmetals.com; www.techmetals.com

Techmetals offers Optakoat - the coating of choice for SPDT applications of precision optics, mirrors, critical optic molding applications and BEF production. Techmetals also offers Optic Grade EN, Anodize, Silver and TM-Rx Medical Coating. See our complete list of specially designed coatings, "Solving your Problems with our Solutions" at www.techmetals.com. Contact: Steve Deisher, GM - Optics Department, sdeisher@techmetals.com; Tara Schumaker, Operations Manager - Optics Department, tschumaker@techmetals.com.

Technical Manufacturing Corp.

#1311



15 Centennial Dr, Peabody, MA, 01960
978/532-6330; fax 978/532-8682
sales@techmfg.com; www.techmfg.com

New Product: Vacuum Compatible CleanTop Stainless Steel Honeycomb Optical Tops.

TMC manufactures a complete line of Optical Tops and Vibration Isolation systems. Key features include the patented CleanTop® II spill-proof tops and Gimbal Piston® isolators for vertical and horizontal vibration isolation. New products include the ElectroDamp PZT line of hybrid active vibration cancellation systems, STACIS® piezoelectric active vibration isolators, Lightweight Breadboards, Cleanroom Compatible systems and Radius Corner Tops. TMC has full custom capabilities. Contact: John Allegrezza.

Technobis Group

#6270

Geesterweg 4b, Uitgeest, The Netherlands, 1911 NB
31 251 248432; fax 31 251 242835
www.technobis.nl

New Product: High speed multichannel / multisensor interrogator, maximum sampling frequency of 19,3 kHz per sensor.

Technobis Group is an international developer and supplier of high-tech instruments and modules. Technobis Group exists of three companies. Technobis Mechatronics: development of mechanical modules and instruments and the supply of mechanical, optical and photonic (sub) systems. Technobis Optronics: development of opto-mechanical and photonical modules and instruments. Technobis Fibre Technologies: development and supply of complex high-tech fibre interrogator modules and sensors. Contact: P.L. Kat, President and Chief Executive Officer, Ellen Schipper, ellen.schipper@technobis.nl.

TecOptics

#1235



1760 Grand Ave, Merrick, NY, 11566-3300
516/379-1203; fax 516/546-7031
info@tecoptics.com; www.tecoptics.com

Air-spaced and solid etalons. Ultrahigh damage threshold laser optics. Interferometric optics. Custom optical and opto-mechanical systems. Diode-pumped CW TEM₀₀ solid state lasers from Laser Quantum: 473nm, 523nm, 527nm, 532nm, 660nm, 1047nm, 1053nm, 1064nm wavelengths - 50mW to 6W output powers - mode-hop-free single frequency models - high quality at reasonable prices. Contact: Warren Gutheil, wgutheil@tecoptics.com.

Tecport Optics, Inc.

#632



6901 TPC Dr Ste 450, Orlando, FL, 32822
407/855-1212; fax 407/855-1213
sales@tecportoptics.com; www.tecportoptics.com

Teem Photonics

#1609

61 Chemin Du Vieux Chene, Meylan, France, 38240
33 4 76 04 03 09; fax 33 4 76 04 03 02
i.allegre@teemphotonics.com; www.teemphotonics.com

Teledyne Judson Technologies

#2012



221 Commerce Dr, Montgomeryville, PA, 18936-9641
215/368-6900; fax 215/362-6107
www.teledynejudson.com

A global designer/manufacturer in the IR Sensor market with design/fabrication expertise in FPAs (InGaAs, InSb and HgCdTe) and photodetectors (Ge, InGaAs, InAs, InSb, PbS(e) and HgCdTe), packaging/cooling, electronics and optics. We deliver solutions for industrial, military and space markets. A quarter VGA InGaAs camera developed for commercial application will be demonstrated. Contact: George Gasparian, Sales/Applications Engineer, ggasparian@teledynejudson.com; Joseph Kimchi, Vice President of Engineering, jkimchi@teledynejudson.com.

Telemark

#746



20936 Cabot Blvd, Hayward, CA, 94545
510/887-2225; fax 510/887-2265
garyh@telemark.com; www.telemark.com

TELOPS Inc.

#5048



100 - 2600 ave St-Jean-Baptiste, Quebec, QC, Canada, G2E 6J5
418/864-7808; fax 418/864-7843
contact@telops.com; www.telops.ca

New Product: V1000-TO: Cost effective reliability and production testing of TO-Can devices.

Telops markets a complete line of reliable advanced burn-in, lifetest and characterization stations for manufacturers of photonic devices. Optimize your development and manufacturing process with a customized solution adapted to meet your needs and specifications. Telops also provides a complete state of the art offering for photonic device manufacturers including scribing, cleaving, stacking/unstacking, testing and more. Need to have your devices tested? Ask Telops how we can help. Contact: John Tessitore, Business Development Manager, john.tessitore@telops.com; Jean Giroux, President, Chief Executive Officer, jean.giroux@telops.com.

Tempo Clean Room Foam

#5060, 5062



Foam Boxes for Optics, 1227 N Miller Park Ct, Visalia, CA, 93291
559/651-7711; fax 559/651-0123
tempo@tempo-foam.com; www.tempo-foam.com

New Product: New fiber coil stack packs, 63mm, 101 and 304mm spool diameters.

Stock and custom static dissipative packages for clean room handling of glass and other substrates. Contact: Doug Rogers, President, tempo@tempo-foam.com.



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82178 Puchheim · Germany
Tel. +49 (89) 800 746-0 · Fax +49 (89) 800 746-199
info@scanlab.de · www.scanlab.de

SCANLAB America, Inc.
2020 Calamos Court - Suite 250
Naperville, IL 60563 - USA
Tel. +1 (630) 799-1553 · Fax +1 (630) 799-1551
info@scanlab-america.com
www.scanlab-america.com

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Tempotec Optics Co., Ltd.

#6006

Inside Min'an Enterprise Hongshan Science and Technology Area, 550 Industry Rd, Fuzhou Fujian, China, 350002
86 591 2837 9366; fax 86 591 2837 9339
sales@tempotec.com; www.tempotec.com

New Product: Tempotec fabricate precision waveplates include low order, zero order, true zero order waveplate.

Tempotec Optics is a professional manufacturer of high quality precision optical components. Our products include Waveplate, Optical window, filter, Mirror, Beamsplitter, Prism, Lens, etc. Tempotec have completed optics production lines. Our product quality is reliable controlled by our ISO9001:2000 system. Our experienced engineers can support our customer for design and application. Contact: Hongbo Hou, VP, Sales and Marketing, sales@tempotec.com.

Teraxion Inc.

#6266

2716 Einstein, Sainte-Foy, QC, Canada, G1P 4S8
418/658-9500; fax 418/658-9595
info@teraxion.com; www.teraxion.com

TeraXion is a manufacturer of high performance optical components and sub assemblies for the Telecom, Industrial, Aerospace, Defense markets. Products include High power reflectors and Pulse stretcher for CW and Ultra Fast Fiber lasers, High performance laser modules for Lidar systems, Narrow line width laser modules for sensing systems and Tunable or Latchable dispersion compensator for high speed communication systems. TeraXion customized high end optical devices for Aerospace applications. Contact: Daniel Mailloux, Marketing Manager, dmailloux@teraxion.com; Yvan Bisson, Sales Representative, ybisson@teraxion.com.

Termotek USA, LLC

#6030

135 Nicholson Ln, San Jose, CA, 95134
408/964-7780; fax 408/964-7777
info@termotek-usa.com; www.termotek-usa.com

New Product: Chillers that control and monitor: Conductivity, Flow, Pressure, Temperature, Cooling Power.

Manufacturer of Laser cooling systems for the Marking, Medical, Semiconductor, Sintering and plastic Welding industry. Producers of Air to Water and Water to Water heat exchangers and compression coolers for low, medium and high power lasers. Contact: David Estrada, National Sales Manager, david.estrada@termotek-usa.com; Susan Hwang, Office Coordinator, susan.hwang@termotek-usa.com.



EXHIBITION MAP/RESTAURANT GUIDE SPONSOR

Tessera Inc.

#1007



3099 Orchard Dr, San Jose, CA, 95134
408/894-0700; fax 408/894-0710
info@tessera.com; www.tessera.com

Tessera licenses its innovations and delivers products based on them to promote supply chain infrastructure, enabling manufacturers get to market on time. Its scalable solutions address market demand for smaller, higher-performing electronic products at lower cost. Tessera focuses on technologies in wafer-level optics, image enhancement, image sensor packaging and chip-scale packaging to advance electronics, optics and imaging for cell phones, digital cameras, PDAs, security devices, etc.



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Texas Instruments DLP

#2043

6550 Chase Oaks Blvd, Plano, TX, 75023-2308
214/567-7684
www.dlpdiscovery.com

New Product: DLP® PICO PROJECTOR KIT-uses the tiniest DLP chip to enable new markets at a lower price point.

DLP® Products, a division of Texas Instruments, creates world-class digital technology allowing electronics manufacturers, scientists and engineers to innovate. DLP technology enables development in light-steering applications from digital cinema and home theater to optical networking and 3D Metrology. TI is committed to delivering great solutions that solve customers' problems so they can invent new electronics to make the world smarter, healthier, safer and more fun.

Thales Laser SA

#1543

RD 128 BP 46, Orsay Cedex, France, 91401
33 1 69 33 02 25; fax 33 1 69 33 02 71
thales-laser@fr.thalesgroup.com; www.thales-laser.com

New Product: NEW SAGA 330/10 Flashlamp Nd:YAG pulsed laser 2.5J @532nm @10Hz.

Nanosecond and Femtosecond lasers, ultrafast solid-state pulsed lasers, turnkey systems and custom solutions are the core business and expertise of Thales Laser. The quality and stability of its products meet the needs of both industrial and scientific applications. Contact: Fabien Ghez, Sales Engineer, Products and Systems, fabien.ghez@fr.thalesgroup.fr; Mrs. Ariane Andreani, Sales Manager, Products and Systems, ariane.andreani@fr.thalesgroup.com.

The China and South Optical Crystals Co. #1939

First Industrial Zone, Songgang Boan District, Shenzhen, China, 518105

86 755 27091212; fax 86 755 27553757
sapphires@126.com; www.sapphires.com.cn

THE CHINA and SOUTH OPTICAL CRYSTAL CO. is a manufacturer of precision sapphire optical components for use in a wide variety of Infra-Red and Ultra-Violet applications including as defense, optical devices, medical, laser and industrial markets for 10 years. We produce products such as sapphire optical windows, lenses, prisms, aspheric lenses and so on. For more information about THE CHINA AND SOUTH SAPPHIRES, please visit our website—<http://www.sapphires.com.cn>. Contact: Martin Ding, Manager, sapphires@126.com.

Theratron Engineering Inc.

#1238

687 Lowell St, Methuen, MA, 01844-1884
978/687-8844; fax 978/687-2477
info@thermatroneng.com; www.thermatroneng.com

Theratron Engineering specializes in the design and manufacture of high reliability liquid-to-air heat exchangers and above-ambient cooling systems for demanding applications. Theratron maintains a large inventory of designs covering most applications. Individualized design services are available, in most cases free of charge. Theratron enjoys an international reputation for customer service and responsiveness. Contact: James Haslam, Manager - Sales and Marketing, jhaslam@thermatroneng.com; David Savoy, Product Manager, dsavoy@thermatroneng.com.

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FREE Exhibitor Product Demonstrations

Refer to pages 8–16 for complete time, schedules, and locations.

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Photonics West 2009

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BOOTH 6385

Wavelength Technology Singapore Pte Ltd

Skytech Building, Bukit Batok St 24, #06-03
Singapore 659480
Tel: (65) 6564 9624 Fax: (65) 6564 3862
Name: Mr Robert Hwang - CEO
Email: bob@wavelength-tech.com
www.wavelength-tech.com



BOOTH 6378 (SOI Alliance)

Delta Optics Technologies Pte Ltd

Block 51, #02-15/16, Ayer Rajah Crescent
Singapore 139948
Tel: (65) 6779 7976 Fax: (65) 6779 2792
Name: Mr Lee Kam Sung - Director
Email: kslee@deltaoptics.com
www.deltaoptics.com

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T & C Plastic Moulding Pte Ltd

Block 3015-A, Ubi Road 1
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Singapore 408705
Tel: (65) 6744 6912, 6742 6757
Fax: (65) 6744 6994
Name: Mr S.Y. Wong
Email: sales@tncplastic.com
www.tncplastic.com



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Wangi Industrial Co Pte Ltd

29, Ubi Road 4, #04-00
Singapore 408619
Tel: (65) 67432233 Fax: (65) 67430195
Name: Chew Ker Yee - Director
Email: kycheew@wangi-industrial.com
www.wangi-industrial.com

BOOTH 6383

Speta

114 Balestier Road
Singapore 329679
Tel: (65) 6291 6430
Fax: (65) 6292 4517
Name: Harris Chia - Project Manager
Email: harris@speta.org
www.speta.org



BOOTH 6389

Opto-Precision Pte Ltd

11 Toh Guan Road East, #02-01
Singapore 608603
Tel: (65) 6565 1110
Fax: (65) 6565 0013
Name: Mr Keigo TANG - Vice President
Email: keigo.tang@opto.com.sg
www.opto.com.sg

Photonics West Exhibitor Directory

Thermo Fisher Scientific



101 Commerce Blvd, Liverpool, NY, 13088-4507
315/451-9410; fax 315/451-9421
sales.cidtec@thermo.com; www.thermo.com

New Product: 2K x 2K Random access 16bit camera with eXtreme Dynamic Range. Radiation hard digital color camera.

Thermo Fisher Scientific manufactures high performance Charge Injection Device (CID) cameras for demanding imaging applications in machine vision, scientific imaging, and radiation environments. Features include: Wide Dynamic Range, Anti-blooming, UV - NIR response, and Radiation hardness. Formats include: Scientific, RS-170, Progressive, CCIR scan with intensification services for low light imaging or high speed gating. Deep UV and X-ray coating deposition services are also available. Contact: Tony Chapman, Director of Sales and Marketing, tony.chapman@thermofisher.com; Mike Pilon, General Manager, michael.pilon@thermofisher.com.

Thermo Scientific, Scientific Instruments #1144

5225 Verona Rd, Madison, WI, 53711
608/276-6100; fax 608/273-5046
analyze@thermo.com; www.thermo.com

Thermo Scientific offers solutions for material science applications. FT-IR spectrometers are used for solar cell analysis, metrology applications, measurement of coatings and contaminants on optics and more. The Almega FT-Raman the system provides a wide range of solutions to analytical problems related to molecular structure. The Evolution 600 UV-Vis spectrophotometer delivers superior wavelength accuracy to give you information on the UV, visible and near-IR transmission of materials.

ThermoTek Inc.

#6350

1200 Lakeside Parkway Bldg 2 #200, Flower Mound, TX, 75028
972/874-4949; fax 972/874-4945
thermotek@thermotekusa.com; www.thermotekusa.com

Thermal management systems for precise temperature control. Solid state recirculating chillers from 100 - 700 watts of cooling power in small portable package. Our patented power supply and patented energy efficient thermoelectric system design enables our chillers to be small, economical and reliable. With our innovative designs for precision thermal management and numerous patents on our technology, ThermoTek continues to provide thermal solutions to an increasing range of applications. Contact: Andrew Zimsen, Western Region Sales Manager, azimsen@thermotekusa.com; David Grey, Director of Sales, dgrey@thermotekusa.com.

Thermoteknix Systems Ltd.

#6604

Teknix House, 2 Pembroke Ave, Waterbeach Cambridge,
United Kingdom, CB5 9QR
44 1223 204 000; fax 44 1223 201 010
sales@thermoteknix.com; www.thermoteknix.com

New Product: Scientific real-time 640x480 thermal cameras and related capture and analysis software.

Thermoteknix MIRICLE IR cameras, cores and engines available in 384x288 and 640x480 resolution versions range from hermetically sealed, space-qualified units, lightweight UAV, shutterless models, plus new 384x288-25µm and ultra-fast 240Hz cameras. With Thermoteknix' integral signal-processing and image-enhancement with flexible configurations, MIRICLE cameras provide a self-contained solution in a miniature package. A major new Thermoteknix camera product launch will be taking place at the show. Contact: Alistair Brown, Product Manager (Imaging), a.brown@thermoteknix.com; Dick Ludwig, Sales Manager USA, d.ludwig@thermoteknix.com.

#1144

Thin Film Technology, Subsidiary of Williams Advanced Materials

#1800

153 Industrial Way, Buellton, CA, 93427
805/688-4949; fax 805/688-8487
michael_zasowski@beminc.com; www.thinfilmttechnology.com



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Thorlabs, Inc.

#1126



435 Rte 206, Newton, NJ, 07860
973/300-3000; fax 973/300-3600
sales@thorlabs.com; www.thorlabs.com

New Product: Adaptive Optic Toolkit for wavefront compensation includes Wavefront Sensor and MEMS deformable mirror.

Thorlabs designs, develops, and manufactures building blocks for the photonics industry including opto-mechanics, motion control, nano-positioning, alignment, optical components, laser diodes, tunable lasers and vibration isolation systems. In addition to core photonics building blocks, we provide system level solutions including complete OCT and imaging systems, like confocal and adaptive scanning microscopes. Contact: Tim Villeneuve, Sales, tvilleneuve@thorlabs.com; Ying Zhao, Sales, yzhao@thorlabs.com.



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Time Bandwidth, Inc.

#433



61 Union St, Westfield, MA, 01085
413/564-0610; fax 413/564-0611
sales-usa@time-bandwidth.com; www.tbwp.com

Time-Bandwidth Products manufactures passively mode-locked tunable and fixed pico and femtosecond DPSS lasers using our patented SESAM® technology. Wavelengths from 262nm to 1550nm are available at different rep rates and power levels reaching up to 50W to match your application in research or for industrial applications. Contact: Alain Bourdon, Vice President of Sales and Marketing, alain.bourdon@tbwp.com.



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Toptica Photonics, Inc.

#433



1286 Blossom Dr Ste 1, Victor, NY, 14564
585/657-6663; fax 877/277-9897
sales@toptica-usa.com; www.toptica-usa.com

New Product: World's First 488nm diode laser-iPulse 488nm T-Red of Single-Mode Diode Lasers-XTL.

TOPTICA is the world leader in diode laser and femto-fiber technology for industrial and scientific markets offering the widest range of single mode tunable light from 205 to 3000 nm spectral region. Our FemtoFiber product spectrum covers a wavelength spectrum between 480 and 2100 nm including visible and infrared spectrum. Contact: Mark Tolbert, Director of OEM, sales@toptica-usa.com; Michael Holmes, Director of Scientific Sales.

Toray Precision Co., Ltd. #6905

1-1-40 Ohe, Ohtsu-shi Shiga-ken,
Japan, 520-2141
81 77 545 8801; fax 81 77 545 8824
t-watanabe@tcp-jp.co.jp; www.tcp-jp.co.jp

New Product: We can make 2 micron hole in diameter.

Toray Precision responds to customer needs by creating our own unique micro-machining technology based on numerous state-of-the-art machining technologies, like ultra-micro discharge machining equipment. And based on the experience and technology we have developed through the manufacture of spinnerettes for spinning synthetic fibers, we have produced high quality, precision machined parts, and supplied these to a wide range of industrial fields, such as aviation, medical device. Contact: Tomohiro Ishida, Assistant Manager, t.ishida@toray-intl.com; Tamio Watanabe, Director, t-watanabe@tcp-jp.co.jp.

Toshiba American Information Systems #6005

9740 Irvine Blvd, Irvine, CA, 92618-1697
602/796-1697; fax 949/470-9390
Vincent.Giovinco@tais.toshiba.com;
www.cameras.toshiba.com

New Product: Toshiba's New, Ultra-Compact HD Camera with True 1080p Scan at 60 Frames per Second.

Toshiba Imaging (www.cameras.toshiba.com) is the premier supplier of high quality video cameras for machine vision, R&D, specialty broadcast and scientific applications. Toshiba's HDTV video imaging technology and innovative 3-chip CCD color cameras with remote heads are based on their proprietary 3CCD prism block technology for high resolution imaging. The newest series features affordable and ultra-compact, one-piece, HD CMOS cameras for specialty broadcast, machine vision and industrial imaging. Contact: Vince Giovinco, National Sales Manager, Vincent.Giovinco@tais.toshiba.com.



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Tower Optical Corp.



3600 S Congress Ave Unit J, Boynton Beach, FL, 33426
561/740-2525; fax 561/740-2518
sales@toweroptical.com; www.toweroptical.com

New Product: Transmission Flat for interferometers have precision optic in bayonet mount ring supplied in a case.

Tower Optical is a manufacturer of precision optical components including waveplates, prisms, beamsplitters, lenses, windows, mirrors and filters. These parts are supplied in standard and micro sizes. In addition, Tower sells a line of high performance solid state lasers. Tower also offers build-to-print with mechanical assembly. Contact: Joel Kramer, Director of Sales, Ken Weinberger, Sales Engineer, kweinberger@TowerOptical.com.

Toyotec Co., Ltd.

2-35 Nishi Yutaka, Toyokawa, Japan, 442-0024
81 533 85 1110; fax 81 533 85 1458
toyotecsales@toyo-circle.co.jp; www.toyotec.com

New Product: Free-form shape plastic lens, Lens array process.

We, Toyotec, provide ultra-high precision plastic lens to various customer such as in Camera, Projector, Printer/MFP, Barcode markets. Offering lens unit from optical design to manufacturing with integrated controlled system is also one of our company features. Toyotec can meet a wide variety of customer's demand of design due to in-house operation of glass lens, plastic lens, and engineering plastic.

Translume, Inc.



655 Phoenix Dr, Ann Arbor, MI, 48108
734/528-6371; fax 734/528-6334
www.translume.com

New Product: Standard and custom fused silica chips with microfluidic channels and embedded optical waveguides.

Translume is a leader in femtosecond micromachining of fused silica glass and offers a variety of fabrication and integration services for custom applications. Using proprietary laser writing and etching techniques, Translume creates devices that combine optical waveguides, microfluidic components and glass micromechanical (glass MEMS) elements. Available for biomedical, defense and industrial applications. Contact: Eric Jacobson, Vice President, ericjacobson@translume.com; Philippe Bado, President, pbado@translume.com.

TransMIT GmbH

Kerkrader Str 3, Giessen, Germany, 61169
49 641 94364 0; fax 49 641 94364 99
karl.klein@transmit.de; www.transmit.de

New Product: Measurement systems for specialty fibers, FO-systems, DUV-spectrometer, fiber certificate, FO for LEDs.

TransMIT offers inside information about major activities of work/research/ results/ developments within the Hessian universities. We help to search for ideas and innovations and find contacts/partners. We offer consultation concerning communication and perceive ourselves as being a network, bringing together universities and businesses. TransMIT-center for Fiber-Optics and Industrial Laser Applications offers consulting, planning and realisation in respect to new fiber-optic products/systems. Contact: Karl Klein, Prof., Director of CeFIL, karl.klein@transmit.de; Cornell Gonschior, Dipl.-Ing. (FH), Scientist, Cornell.P.Gonschior@iem.fh-friedberg.de.

#447

Triad Technology Inc.



520 Saint Andrews Dr, Longmont, CO, 80501
720/494-0717; fax 303/532-2080
sales@triadtechno.com; www.triadtechno.com

Triad Technology is a supplier and reseller of reference cell and instrumentation used in Molecular and Atomic Spectroscopy. Contact: Archie Brown, Vice President, abrown@triadtechno.com; Lynn Brown, sales@triadtechno.com.

Trioptics GmbH

Hafenstr 35-39, Wedel, Germany, 22880
49 4103 18006 0; fax 41 4103 18006 20
info@trioptics.com; www.trioptics.com

New Product: OptiSpheric® IOL-complete IOL testing in air and in-situ: diopter power/MTF/radii of curvature/BFL/FFL.

Manufacturer stock/custom Optical Test Equipment: OptiCentric®-automated alignment, centering, cementing and bonding, centration error measurement; OptiSpheric®-Industry's standard for complete optical characterization (EFL, BFL, MTF, radius); ImageMaster® MTF-characterization-UV-VIS-IR, mobile phone and wafer level lens testing; WaveMaster®-Real time wave front analysis; PrismMaster®-Prism measurement; SpectroMaster®-Refractive Index measurement; Electronic and visual autocollimators. Contact: Eugen Dumitrescu, Managing Director, info@trioptics.com; Simon Zilian, Sales Manager, sales@trioptics.com.



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TRUMPF Inc.



111 Hyde Rd, Farmington, CT, 06032
860/255-1000; fax 860/255-6424
oeminfo@us.trumpf.com; www.us.trumpf.com

As a world market leader in laser technology, TRUMPF provides machine tools for laser processing, punching, forming and bending. The TRUMPF laser product portfolio comprises laser systems for cutting, welding and surface treatment of 3D parts, high powered CO₂ lasers, as well as lamp- and diode-pumped solid-state lasers, marking lasers and laser systems. Additional business divisions include power tools, electronics and medical technology.

TSB Innovation Agency Berlin GmbH

Rudower Chaussee 29, Berlin, Germany, 12489
49 30 6392 5170; fax 49 30 6392 5173
info@tsb-adlershof.de; www.tsb-adlershof.de

New Product: - LASER OPTICS BERLIN - fair and congress 22-24 March, 2010 - Report Photonics in Berlin-Brandenburg.

The TSB is the central contact point for technology and innovation in Berlin, representing 380 photonics companies and more than 30 research institutions in the German capital region (cf. Report Optical Technologies and microsystems technology in Berlin-Brandenburg 2008/09). In cooperation with Messe Berlin, TSB hosts an international fair and congress every two years with about 130 exhibitors - the LASER OPTICS BERLIN. Further information: www.laser-optics-berlin.com; www.tsb-adlershof.de. Contact: Eberhard Stens, Managing Director; Gerrit Roessler, Project Manager.

#6700

#6295

#1801

#1801

#1209

#6286

#1341

#1801

TwinStar Optics

#1040

6741 Commerce Ave, Port Richey, FL, 34668
727/847-2300; fax 727/847-2304
sales@twinstaroptics.com; www.starstar.com

TwinStar is an ISO 9001:2000 certified company and a global leader in the fabrication and coating of precision optics and crystals. TwinStar fabricates waveplates, etalons, lens ducts, laser slabs/rods, prisms, mirrors, and provides bonding and optical assembly services. TwinStar also works with linear and non-linear laser crystals including YAG, KTP, LBO, laser glasses. Twinstar's coating lab produces high damage coatings from the UV thru the FAR IR including solderable edge metalizations. Contact: Brett Lombardo, Business Development Manager, BrettL@twinstaroptics.com; Mark Gruttadauria, General Manager, MarkG@twinstaroptics.com.

UBIFRANCE

#1712

77 boulevard Saint Jacques, Paris, France, 75014
33 1 40 73 30 00; fax 33 1 40 73 32 04
www.ubifrance.fr

UBIFRANCE, the French Agency for International Business Development, promotes French technologies, products, services and know how abroad. Capitalizing on its resources and those of the network of the Economic Departments of French Embassies abroad, the Agency offers French companies a full range of products and services designed to support them in their efforts to penetrate foreign markets. Contact: Romain Belveze, IT Project Manager, Romain.belveze@ubifrance.fr.

ULIS

#6229

BP 27 ZI des Iles Cordees, Veurey Voroize, France, 38113
33 4 76 5374 70; fax 33 4 76 5374 80
ulis@ulis-ir.com; www.ulis-ir.com

New Product: UL 03 16 2 (384 x 288 - 25µm) is the most innovative, low power and miniature infrared detector.

ULIS develops and manufactures infrared detectors based on amorphous silicon technology, a semiconductor material that can be produced cost-effectively, thus making infrared vision affordable for all applications such as night vision, security, safety, fire-fighting, predictive maintenance and medical imaging. Contact: Célia Chapuis, Communications Associate.

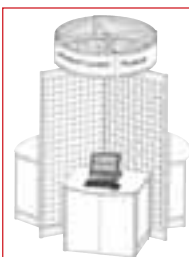
ULTRA Tec Mfg., Inc.

#5055

1025 E Chestnut Ave, Santa Ana, CA, 92701-6425
714/542-0608; fax 714/542-0627
info@ultratecusa.com; www.ultratecusa.com

New Product: ULTRAPOL Fiber Lensing System for the production of flats, bevels, cones and chisel-tips.

ULTRA TEC is a manufacturer and supplier of bench-top surface and sample preparation equipment and consumables for photonic and related applications. Our MICROSLICE and ULTRASLICE precision saws provide surfaces which may be prepared to optical standards by the ULTRAPOL and MULTIPOL range of lapping and polishing equipment. We also offer a range of dedicated fiber connector and bare-fiber polishers. Contact: Robert Rubin, rob@ultratecusa.com.



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559.651.1402

UltraVolt, Inc.

#1142

1800 Ocean Ave, Ronkonkoma, NY, 11779
631/471-4444; fax 631/471-4696
csd@ultravolt.com; www.ultravolt.com

New Product: "HVA" Series High Voltage Amplifier.

UltraVolt produces over 450 models of high-voltage dc/dc converters. Output voltages are available in ranges from 0 to 62V through 0 to 50kV. Output power is available from 4 watts to 250 watts with nominal 12V to 24V inputs. All units can be operated as low as 9VDC or as high as 32Vdc with derating. Models are analog programmable and DAC ready. Units feature output-over-current protection with self-recovery. Ultra-low ripple is available down to <3mV. Contact: Scott Wilson, Director of Business Development, csd@ultravolt.com; Richard Bailey, Director of Marketing and International Representation, richard.bailey@ultravolt.com.

Umicore Optical Materials USA Inc.

#6024

2976 S 614 Rd, Quapaw, OK, 74363
918/673-1650; fax 918/673-2121
jeff.koch@umicore.com; www.optics.umicore.com

We are world wide leaders in providing germanium-based material solutions for infrared optics and opto-electronic applications. Contact: Jeff Koch, Sales Manager, Jeff.Koch@umicore.com; Tammy Trimble, Sales Engineer, Tammy.Trimble@umicore.com.

Photonics West Exhibitor Directory

Umicore Thin Film Products

#6024

4 Townsend West Unit 12, Nashua, NH, 03063
800/248-7073; fax 603/594-1538
sales.materials.na@umicore.com;
www.thinfilmproducts.umicore.com

Umicore Thin Film Products is a recognized leader in developing, manufacturing and recycling materials used for thin film applications. We are committed to customer satisfaction by providing high quality products such as sputtering targets, evaporation materials and accessories that meet unique customer specifications. Our materials are suitable for coatings in the UV, visible and IR wavelength regions and come in a variety of forms and sizes. ISO 9001 and 14001. Contact: Chaffee Tran, Sales Manager, chaffee.tran@am.umicore.com; Bill Reeves, Product Manager, bill.reeves@am.umicore.com.

Unice E-O Services Inc.

#3023

Chung Li Industrial Park, 3F No 25-2 Ji Lin Rd Chung Li,
Taoyuan, Taiwan, 320
886 3 462 6569; fax 886 3 462 5586
unice1@ms4.hinet.net; www.unice.com.tw

New Product: LDC-10 Subminiature Linear Stage with Stepper or DC Servo driven.

Unice possess all the necessary resources to offer our customers' solution, from hardware, software design, detecting devices selection and then integrated all of them into an extremely powerful customized system for different application in the lab, production line, QC line and anywhere it has been need. Contact: Johnny Chang, President, johnnyc@email.unice.com.tw.

Union Optic, Inc.

#6192

SPIE Corporate Member

Bldg #5-2, Guandong Science and Technology Industrial Park,
Wuhan, China, 430074
86 27 87531505; fax 86 27 87531525
www.u-optic.com

New Product: Achromatic Waveplate.

Manufacturer in Optics Valley of China, products include waveplates, polarizers, prisms, windows, lenses, color filters, beamsplitters, IR optics, micro optics, laser crystals, NLO crystals and in-house coating. ISO9001 certified. Contact: Casper Zhang, Sales Director, casper@u-optic.com; Jessica Li, Sales Engineer, jessica@u-optic.com.

Unioriental Optics Co., Ltd.

#6382

Rm B908 TYG Ctr No C2 Dongsanhuanbeilu, Chaoyang
District, Beijing, China, 100027
86 10 84417633; fax 86 10 84417622
sales@unioriental.com; www.unioriental.com

New Product: Nd, Er, Pr, Tm, Ho and no doped laser YLF crystal and VUV grade MgF₂, CaF₂ and BaF₂.

Unioriental is a leading manufacturer in China for growing, fabricating and coating Laser crystals, NLO crystals and optical components especially for LiSAF, LiSGaF, LiCAF, YLF, LBO, BBO, KTP, LN, KN, VUV MgF₂, CaF₂ and BaF₂. Contact: Kylie Chen, Sales Director, sales@unioriental.com; Rebecca Yang, Sales Manager, sales@unioriental.com.

United Lens Co., Inc.

#319

259 Worcester St, Southbridge, MA, 01550-1376
508/765-5421; fax 508/765-0500
www.unitedlens.com

Manufacturer of custom molded blanks, precision machined blanks, flat polished and thin film coatings. Supplier of coating and machining services of customer supplied material. Large inventories of optical glass, fused silica, fused quartz and other low expansion materials coupled with extensive machinery allow for rapid deliveries. Contact: Ken Plouffe, Sales Manager - Molding Division, kplouffe@unitedlens.com; Nancy Darbee - Sales Mgr, Optical Shop.

Univ. of Arizona, Optical Sciences Center

#417

SPIE Corporate Member

1630 E University Blvd, Tucson, AZ, 85721-0095
520/621-8418; fax 520/626-1480
academics@optics.arizona.edu; www.optics.arizona.edu

The College of Optical Sciences offers one of the world's foremost teaching and research programs in optics. The College's 400 students select from over 100 graduate and undergraduate optics courses, and have the opportunity to participate in pioneering research programs. The College of Optical Sciences also offers distance learning opportunities for companies and individuals, including programs leading to a Master of Science or a Professional Graduate Certificate in Optical Sciences. Contact: Carl F. Maes, Associate Dean, carl.maes@optics.arizona.edu; Will Rivera, Director of Development, wrivera@optics.arizona.edu.

Universal Photonics, Inc.

#1135

SPIE Corporate Member

495 W John St, Hicksville, NY, 11801-1014
516/935-4000; fax 516/935-4144
info@universalphotonics.com; www.universalphotonics.com

New Product: Somos high-speed (200 rpm), double-sided lapping and polishing machines.

Specializing in developing and formulating lapping/polishing consumables and machinery for glass, plastic, crystals, infrared, semiconductor, electro, laser and fiber optics. Including polish pads and compounds, ultra-pure alumina, colloidal silicas, thermoplastic adhesives, holding foils, diamond powders, compounds and lapping film, slurries for sapphire/CaF, lens bonding material, precision pitch, waxes and cements. Machinery: Advantage and DAMA, HKS centrifuges, SOMOS Double-sided Lapping and Polishing. Contact: Justin Mahanna, Sales Rep, justinm@universalphotonics.com; John Colon, Sales Rep, johnc@universalphotonics.com.

University of Rochester, The Institute of Optics

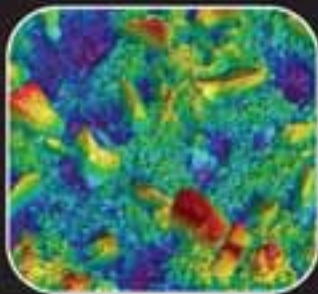
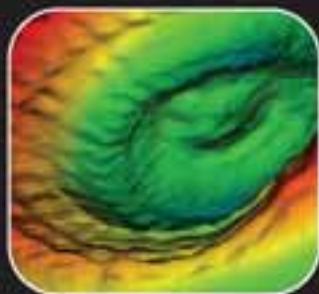
#6094

PO Box 270186, Wilmot Bldg River Campus, Rochester, NY, 14627
585/275-2322; fax 585/244-4936
gayle@optics.rochester.edu; www.optics.rochester.edu

Optical engineering. Industries and National Laboratories can interact with The Institute's faculty and students through The Institute's Industrial Associates Program, which meets on campus twice annually. Also of interest to Industry is the Optics Summer School Program. See www.optics.rochester.edu for more details. Contact: Prof. Wayne Knox, Director and Professor, wknox@optics.rochester.edu; Prof. Gary Wicks, Associate Director and Professor, wicks@optics.rochester.edu.

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US CONEC Ltd.

#6176

1555 4th Ave SE, PO Box 2306, Hickory, NC, 28603
800/769-0944; fax 828/322-7120
customerservice@usconec.com; www.usconec.com

US Conec, Ltd., headquartered in Hickory, NC, manufactures multimode and single-mode MT-style and contract multi-fiber ferrules, the MTP® brand MPO-style connector family, CONCOURS® optical flexible circuits and fanouts, contract precision molded parts for optical packages, termination equipment for multi-fiber interconnections, and novel dry-cloth connector cleaning products. Applications include data center and telecom cabling, connections within routers/ROADM, and medical diagnostic links. Contact: Kim Gabriel, Customer Service Manager, kimgabriel@usconec.com; Mike Hughes, Product Manager, Standard Products, mikehughes@usconec.com.

Vacuum Engineering and Materials Co., Inc.

#6147

131 Albright Way, Los Gatos, CA, 95032-1841
877/986-9900; fax 408/871-2900
info@vem-co.com; www.vem-co.com

New Product: VEM is proud to announce it is now ISO 9001: 2000 Certified!

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Vacuum Process Technology, Inc.

#2028

70 Industrial Park Rd, Plymouth, MA, 02360
508/732-7200; fax 508/732-0317
sales@vpotec.com; www.vpotec.com

Vacuum Process Technology, LLC (VPT) designs and manufactures precision thin film deposition systems for a wide range of applications. VPT provides physical vapor deposition systems using sputtering, electron-beam, thermal evaporation and ion beam assisted thin film deposition technologies. Our applications laboratory is available for development and verification of coating processes. Contact: Steven Chiavaroli, Vice President - Sales and Marketing, schiavaroli@vpotec.com.

Valley Design Corp.

#1927

West Coast Div, 151-D Harvey W Blvd, Santa Cruz, CA, 95060
831/420-0595; fax 831/420-0592
info@valleydesign.com; www.valleydesign.com

New Product: Flat glass plates with precise holes for imaging, microfluidics and precision aperture applications.

ISO 9001:2000 manufacturer of substrates, wafers, windows, disks and flat optics of all materials. Precision lapping, polishing, dicing, backgrinding and ultra-sonic hole drilling services. Specializing in ultra-thin (<25um), ultra-flat (1/10 wave), superpolishing (<5Angstroms), tight tolerances (\pm 1um). Materials in stock: Fused Silica, Optical Glass, Color Filter Glass, Ceramics, Stainless Steel, Metals, Sapphire, Silicon. East and West coast facilities. Incorporated since 1975. Contact: Mandi Indars, Director, Marketing and Sales, mandi@valleydesign.com.

Varian, Inc.

#1406



2700 Mitchell Dr, Walnut Creek, CA, 94598
800/926-3000

customercare@varianinc.com; www.varianinc.com

Varian, Inc. will be displaying recent advances in UV-Vis NIR through Mid Infrared Spectroscopy products. The Cary 6000i is unmatched in performance, accessories and software for the most demanding researcher. A performance FT-IR with relectrance and transmission accessories will also be on display. Visit with our applications specialist to discuss your measurement needs. Contact: Jim Steensrud, jim.steensrud@varianinc.com.

Varioptic

#1427

24b rue Jean Baldassini, Lyon, France, 69007
33 4 37 65 35 31; fax 33 4 37 65 35 30
sales@varioptic.com; www.varioptic.com

New Product: Arctic 416, Autofocus Liquid Lens for high performance imaging applications.

Varioptic develops and manufactures auto-focus liquid lenses for high performance imaging applications from industrial vision to camera phones. With no moving parts, liquid lenses feature several advantages over traditional focusing technologies in terms of robustness, power consumption, size, cost and speed. Varioptic Liquid Lens is integrated in several applications such as webcams, bar code readers, industrial cameras, biometrics and security devices. Contact: Séverine Serrano, Business Development Manager, sales@varioptic.com; Frédérique Gauthier, Commercial Assistant, frederique.gauthier@varioptic.com.

Veeco Instruments Inc.

#1420



1 Terminal Dr, Plainview, NY, 11803
516/677-0200; fax 513/677-0248
info@veeco.com; www.veeco.com

Vermont Photonics, Inc.

#1847

33 Bridge St, PO Box 516, Bellows Falls, VT, 05101
802/460-1790; fax 802/460-1796
mail@vermontphotonics.com; www.vermontphotonics.com

New Product: Calibration Services for Elcomats and Autocollimators.

Optical testing, metrology and quality control equipment. Autocollimators, collimators, diopometers, alignment telescopes, focometers refractometers. New Tunable Terahertz radiation source. Contact: Michael Mross, President; Thomas Lowell, Vice President.

Verrillon, Inc.

#6082



15 Centennial Dr, North Grafton, MA, 01536
508/890-7100; fax 508/839-6688
info@verrillon.com; www.verrillon.com

Verrillon is the preferred supplier of specialty optical fibers and components to the oil and gas, military, industrial and communications markets. Our uniquely designed optical fibers and components have been widely deployed in sensing and communications applications. Verrillon designs, customizes and manufactures a large suite of specialized fibers and fiber solutions. We also offer custom combinations of fiber coatings, dimensions and waveguide designs. Contact: Ed Connor, VP of Sales & Marketing, connor@verrillon.com.

Vescent Photonics

#6081

4865 E 41st Ave, Denver, CO, 80216
303/296-6766; fax 303/296-6783
rommel@vescentphotonics.com; www.vescentphotonics.com

New Product: D2-Series frequency stabilized diode laser system.

Vescent Photonics develops and manufactures spectroscopically referenced laser systems. Contact: Dr. Scott Davis, VP, davis@vescentphotonics.com; Dr. Mike Anderson, President, anderson@vescentphotonics.com.

V-Gen

#5019

1 Betzalel St, Ramat Gan, Israel, 52521
972 3 5755756; fax 972 3 5299707
info@vgen.com.; www.vgen.com

New Product: 10W pulsed fiber laser and 2W (low cost for soft marking) pulsed fiber laser.

V-gen is manufacturing short-pulse Ytterbium fiber-lasers. It is a sealed system all-fiber configuration and robust assembly, designed for industrial standards. The lasers parameters (output power, pulse energy, repetition rate and pulse width) are user controlled. Contact: Dr. Eran Inbar, CEO, eran@vgen.com.

VI Systems GmbH

#1801

SPIE Corporate Member

Hardenbergstr 7, Berlin, Germany, 10623
49 30 308 31 4330; fax 49 30 308 31 4359
sales@v-i-systems.com; www.v-i-systems.com

New Product: VCSEL and photodetector chips and fiber coupled modules for fast (17-40 Gbps) datacom and sensing.

VI Systems GmbH (VIS) is a developer and producer of advanced optical components for high-frequency datacom, time-resolved spectroscopy, medical diagnostics and sensing applications. VIS actively develops novel VCSEL and electro-optically modulated light sources and detectors for placement in emitter and receiver sub-assemblies and as key components in stand-alone optical fiber connectors. VIS also leads development projects on the integration of photonic and VLSI-based devices and systems. Contact: VI Systems, Sales.

Videology Imaging Solutions, Inc.

#6619

37M Lark Industrial Pky, Greenville, RI, 02828
401/949-5332; fax 401/949-5276
sales@videologyinc.com; www.videologyinc.com

VIGO Systems SA

#733

Poznanska 129/133 St, Ozarow Mazoweicki, Poland, 05-850
48 22 733 5405; fax 48 22 655 2155
info@vigo.com.pl; www.vigo.com.pl

Manufacturer of stock and custom MCT IR detectors both TE cooled and uncooled with single and multiple elements. Fast detectors for laser diagnostics. Sensitive detectors for analytical instruments. Contact: Fred Perry, President, fsp@boselec.com.

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Vincent Associates

#332

803 Linden Ave, Rochester, NY, 14625
585/385-5930; fax 585/385-6004
vincentassociates@uniblitz.com; www.uniblitz.com

New Product: The NS Series are compact, durable, reliable and offered in 15, 25 and 45mm apertures. Patent Pending.

Vincent Associates is the manufacturer of UNIBLITZ and UNIBLITZ II electronically programmed shutters and shutter drive systems, with standard devices (including the LS, VS and the CS series of high reliability shutter systems), the XRS (for X-ray use) series and the new N-CAS series. Standard aperture sizes ranging from 1mm - 90mm with many types of microscope and video mounting systems offered for specific shutter mounting applications. Custom configurations and OEM systems are also available. Contact: Stephen Pasquarella, Senior Vice President, spasq@uniblitz.com; Adam Lamb, Vice President Manufacturing, alamb@uniblitz.com.

Virtual Industries, Inc.

#1206

2130 Victor Pl, Colorado Springs, CO, 80915
719/572-5566; fax 719/572-5504
dpalmer@virtual-ii.com; www.virtual-ii.com

Manufacturer of vacuum handling tools and accessories. Products include self-contained vacuum tweezers, battery operated units, bench-top systems and a variety of vacuum cups and tweezer tips. Uses include the handling of electronic components, lenses, wafers or any parts ranging in size from .003 to over 12 inches. All products are manufactured in the U.S.A.

VisiMax Technologies, Inc.

#3027

9177 Dutton Dr, Twinsburg, OH, 44087
330/405-8330; fax 330/405-8332
mclark@visimaxtechnologies.com;
www.visimaxtechnologies.com

VisiMax is a world class provider of precision optical coatings for both glass and polymer optics. VisiMax offers an extensive range of coating types including anti-reflection, beamsplitters, hot and cold mirrors, protective hardcoatings, ND filters, bandpass filters, metal and dielectric reflectors, as well as custom coating needs. Cleanroom coating facility with state-of-the art coating systems and automation. Prototype volumes to full scale production. Contact: Dane Clark, President, dclark@visimaxtechnologies.com.

Vision Research Inc.

#6254

100 Dey Rd, Wayne, NJ, 07470
973/696-4500; fax 973/696-0560
phantom@visionresearch.com; www.visionresearch.com

Vision Research designs and manufactures high-speed digital imaging systems used in applications encompassing defense, entertainment, industry and research. Our Phantom digital high-speed cameras add a new dimension to the sense of sight, allowing the user to see details of an event when it's too fast to see, and too important not to™. Vision Research is a business unit of the Materials Analysis Division of AMETEK Inc. www.visionresearch.com. Contact: Rick Robinson, Director of Marketing, rick.robinson@visionresearch.com; Mark Doerfler, Sales, mark.doerfler@visionresearch.com.

Vision Systems Design/PennWell

#1107

98 Spit Brook Rd, Nashua, NH, 03062-5737
603/891-9439; fax 603/891-9290
kathyb@pennwell.com; www.vision-systems.com

VISION SYSTEMS DESIGN is a global media source serving engineers and engineering managers at OEMs, system integrators and end-user organizations that design, develop, manufacture and integrate components and subsystems for vision and imaging-based systems. *Vision Systems Design* provides global coverage of vision and imaging components, subsystems and technologies and how they are integrated into leading-edge machine vision/industrial, medical, scientific and military/aerospace applications. Stop by our booth for a sample copy of our monthly magazine and a free one-year subscription.

Visitech AS

#6800

Kjellstadveien 5, Lier, Norway, 3400
47 3222 7700; fax 47 3222 7701
contact@visitech.no; www.visitech.no

New Product: LUXBEAM® DLP® Light Engines for industrial and emerging applications, based on TI's DLP chip sets.

VISITECH - The DLP® Design House. VISITECH offers engineering services and manufacturing of imaging products based on the Digital Light Processing, DLP® technology, from Texas Instruments. VISITECH enables your company to implement the DLP® technology in your industrial applications or in digital projection markets with successful new products focusing on: Product quality and reliability; Reduced Technical- commercial risk and time to market; Lower development- and manufacturing cost. Contact: Vegard Borresen, Customer Support Manager, vegard.borresen@visitech.no; Oyvind Tafjord, VP Marketing and Sales, oyvind.tafjord@visitech.no.

Vistec Electron Beam Lithography Group #1801

Goeschwitzer Str 25, Jena, Germany, 07745
49 3641 651955; fax 49 3641 651922
electron-beam@vistec-semi.com; www.vistec-semi.com

Vistec Electron Beam Lithography Group is providing leading edge technology solutions for all areas of advanced e-beam lithography, which covers also optical applications. Operating under the Vistec umbrella, the Group is in the position to offer two different e-beam technologies, tailored to the customer's needs. While Vistec Electron Beam GmbH develops, manufactures and sells Variable Shaped Beam systems, the Vistec Lithography Inc. provides advanced Gaussian Beam systems and solutions. Contact: Ines Stolberg, Manager Strategic Marketing, ines.stolberg@vistec-semi.com; Bob Kane, Regional Sales Manager.

Vixar

#6514

15350 25th Ave N Ste 110, Plymouth, MN, 55447
763/746-8045; fax 763/746-8048
mhibbsbrenner@vixarinc.com; www.vixarinc.com

New Product: Dual wavelength visible/IR VCSEL in a plastic surface mount package.

Vixar offers visible and near IR VCSEL components and subassemblies for industrial sensing, medical sensing and diagnostics, office automation, and communication applications. Available wavelengths range from 660nm to 850nm. Products include discrete laser components, packaged VCSEL arrays, and multi-wavelengths assemblies. Product advantages include low power consumption, narrow wavelength spectrum, narrow beam divergence, and very compact packaging options. Contact: Mary Hibbs-Brenner, CEO, mhibbsbrenner@vixarinc.com; Klein Johnson, CTO, kjohnson@vixarinc.com.

VLOC

#1815

7826 Photonics Dr, New Port Richey,
FL, 34655
727/375-8562; fax 727/375-5300
info@vloc.com; www.vloc.com

Contact: Jim Keck, Director of Sales and Marketing,
info@vloc.com; Les Stearns, International Sales
Manager, info@vloc.com.

Voltage Multipliers Inc. #6319

8711 W Roosevelt, Visalia, CA, 93291
559/651-1402; fax 559/651-0740
www.voltagemultipliers.com

**New Product: XRS 50KV Portable X-RAY Power
Supply and E-Zorb™ High reverse power
diodes.**

Voltage Multipliers Inc. designs and manufactures
High Voltage diodes, multiplier and rectifier
assemblies, power supplies and Opto-couplers,
for the commercial, industrial, medical and military
markets. ISO9001:2000 Certified. Contact: Karen
Spano, Sales Administration Manager, kspano@
voltagemultipliers.com; Margaret Fulleylove, Sales
Associate, mfulley@voltagemultipliers.com.

Vortran Laser Technology, Inc. #6710

SPIE Corporate
Member

21 Goldenland Ct Ste 2000,
Sacramento, CA, 95834
916/283-8208; fax 916/648-9751
office@vortran.com; www.vortran.com

**New Product: Family of hi-performance laser
diode modules optimal for flow cytometry and
scientific use.**

Vortran Laser Technology has developed a family of
diode modules from 660-405nm with exceptional
beam quality and stability. They can be interfaced
through USB or manual control. Outstanding power
stability, pointing stability, polarization ratio, and
beam quality allow the user to incorporate a Vortran
laser into their application effortlessly. Exceptionally
suited for flow cytometry and other biomedical and
scientific applications where extreme beam stability
and power stability are important. Contact: Doug
Wilner, Chief Operating Officer, dwilner@vortranlaser.
com; Chris Kruger, Senior Staff Development
Engineer, ckruger@vortranlaser.com.

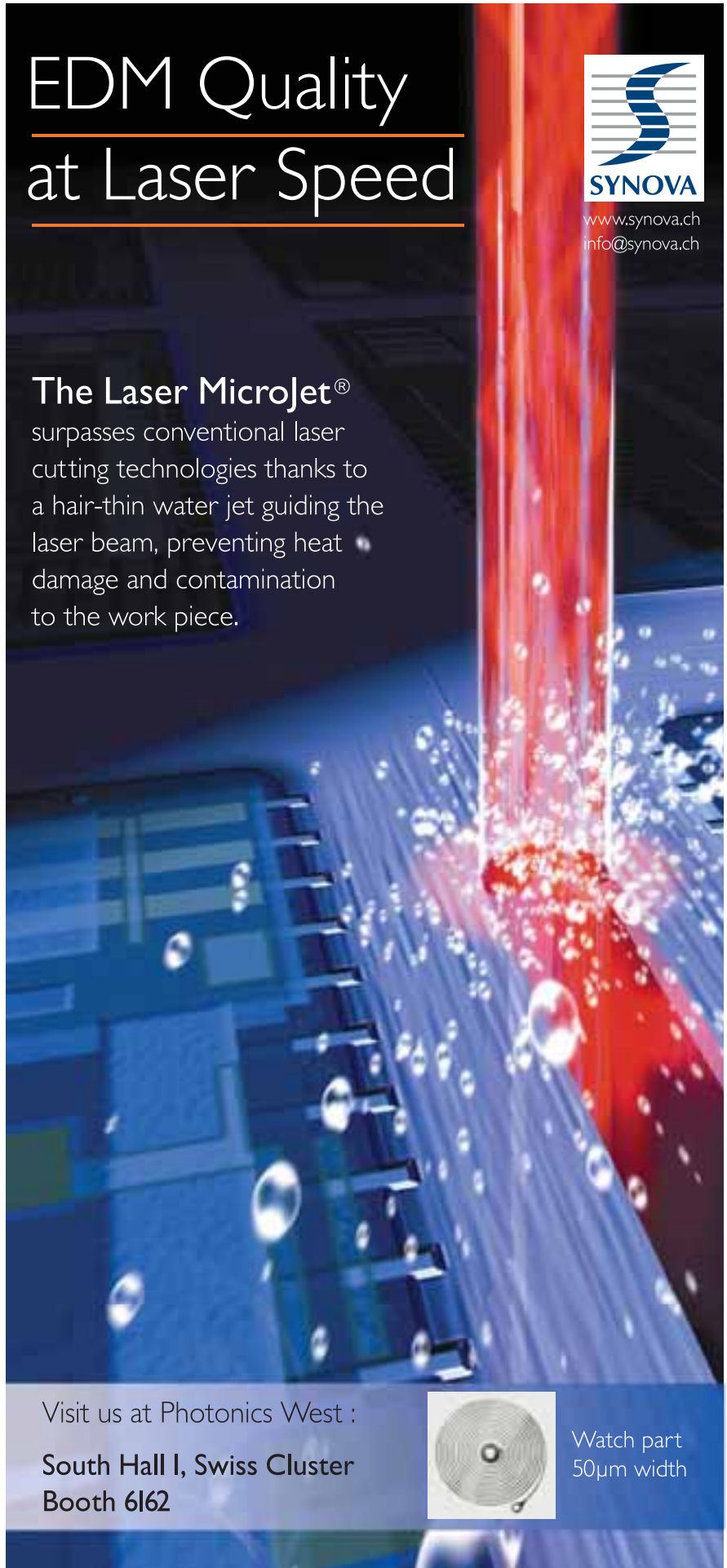


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info@synova.ch

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VueMetrix



960 Hamlin Ct, Sunnyvale, CA, 94089
408/734-9974; fax 408/734-7997
info@vuemetrix.com; www.vuemetrix.com

New Product: Low cost 15A diode driver plus new TEC drivers that integrate with VueMetrix diode controllers.

VueMetrix Inc. is a leading supplier of laser diode and TEC control systems for OEM customers. Our controllers are compact, self-contained and cost effective, yet are versatile enough to satisfy the most demanding applications. These highly integrated systems incorporate advanced diode safety, monitoring and control features in an OEM form factor that is ready for design-in to commercial products. WinVue software transforms any of the OEM controllers into a full featured benchtop system. Contact: Eric Smoker, VP Sales and Marketing, eric.smoker@vuemetrix.com.

#6068

Wangi Industrial Co Pte Ltd.

29 Ubi Rd 4 #04-00, Singapore, Singapore, 408619
65 6743 2233; fax 65 6743 0195
chewkw@wangi-industrial.com; www.wangi-industrial.com

New Product: Technical Glass for Devices, Strengthened and Vander-proof glass, Display panel glass, Precision Optics (Glass Optics and Plastic Optics) and Optical Thin-film coating.

Wangi Industrial is a value provider of high quality surface finishing, technical glass, precision optics and optical thin-film coating solutions. Through operational excellence, technology and innovation, Wangi seeks to create the best winning solutions for its clients. Our clients are in the computer peripherals, consumer digital, imaging, flat panel display, point-of-sales, ATMs, automotive, analytical instruments and optoelectronics sectors. As an independent family business in Singapore since 1968, our passion for excellence and commitment to quality has never changed. Our manufacturing facilities are in Singapore and China. Contact: Chew Ker Yee, VP for Business Development, kychev@wangi-industrial.com.

#6379

Vytran LLC

1400 Campus Dr W, Morganville, NJ, 07751
732/972-2880; fax 732/972-4690
info@vytran.com; www.vytran.com

New Product: GPX-3400 Glass Processing System for Fabrication of Fiber Laser System Combiners.

Vytran is an innovative supplier of semi and fully automated fiber fusion splicing and glass processing solutions. The ultimate performance and reliability in high volume optical fabrication of specialty fiber for high-power fiber laser systems. Vytran will reduce your risk, speed product to market and lower your cost of ownership with cleavers, fusion splicing and glass processing workstations, recoaters and proof testers for fabricating splices, tapers, mode adaptors, end caps and combiners. Contact: www.vytran.com, info@vytran.com.

#6135

Wasatch Photonics, Inc.

1305 N 1000 W Ste 120, Logan, UT, 84321-6802
435/752-4301; fax 435/752-4306
info@wasatchphotonics.com; www.wasatchphotonics.com

#317

WaveFront Sciences, Inc.

see AMO WaveFront Sciences, LLC

#623

Wavelength Electronics, Inc.



51 Evergreen Dr Ste B, Bozeman, MT, 59715-2458
406/587-4910; fax 406/587-4911
wavelength@imt.net; www.teamwavelength.com

New Product: 10A Chassis Mount P-Series laser diode driver and matching ultra-stable temperature controller.

Laser Diode Drivers and Temperature Controllers. We design and manufacture a wide range of robust controllers for OEM markets and researchers. Our high performance controllers are used widely in Biomedical, Semiconductor, Electro-Optics, Fiber optics, Spectroscopy and Military applications. If you want to save space, cost and development time contact sales@teamwavelength.com. Contact: Dana Hinckley, Applications Engineer, dana@teamwavelength.com; Lars Rasmussen, Applications Engineer, lars@teamwavelength.com.

#623

Wafer Process Systems, Inc.



3641 Charter Park Dr, San Jose, CA, 95136
408/445-3010; fax 408/445-3004
info@waferprocess.com; www.waferprocess.com

New Product: Wafer Process Systems Model QDR-LDT-200, Megasonic Quick Dump Rinser with LDT IPA Aerosol Drying.

Wafer Process Systems Inc. is a global leader in Automated Wet Chemical Process Equipment for use in the Semiconductor, Disc Drive, Solar Cell and Photonics industry for substrate cleaning, plating, etching and drying. Contact: Douglas H. Caldwell, President / CEO, doug@waferprocess.com; Barbara C. Caldwell, VP of Administration / CFO / COO, Barbara@waferprocess.com.

#6910

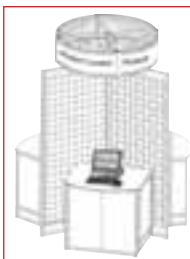
Wavelength Technology Singapore Pte Ltd.

Blk 2 Bukit Batok St 24, #06-03 Skytech Building, Singapore, Singapore, 659480
65 6564 9624; fax 65 6564 3862
bob@wavelength-tech.com; www.wavelength-tech.com

New Product: Beam Shaper, Fiber F-Theta Scan Lens, Ronar-Smith® IR Lens, Beam Expander and Focusing Lens.

Established by a group of Laser Optics professionals in 1998 in Singapore, Wavelength Technology aims to provide customers with quality and cost competitive optical products, primary laser optics, Infrared imaging lens, laser accessories and related components.

#6385



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EXALOS
The bright light source company

EXALOS, an ISO 9001:2000 certified company, is developing and selling advanced Superluminescent Light Emitting Diodes (SLEDs) for medical imaging OCT, fiber optic gyroscopes, fiber optic test equipment and sensors. EXALOS SLEDs operate with wavelengths ranging from 650 to 1700nm, with optical bandwidths up to 190nm and with output powers up to 50mW. EXALOS's portfolio of SLEDs provides customers with the optimum balance of price, time to market, performance, and form factor.

HEPTAGON

Heptagon is the pioneer and leader in replicated wafer-scale diffractive optics and micro-optics. Our expertise in design and mastering, and unique wafer-scale REEMO[®] UV replication technology enable a breakthrough in size, performance and cost for applications such as LED-beam shaping, CMOS imaging and laser pattern generation. Products are lead-free reflow compatible and Telcordia qualified. Heptagon is ISO 9001 certified and manufactures components in high volumes for customers worldwide.

MEYER BURGER
SWISS SLICING SYSTEMS

Meyer Burger Ltd is a leading provider of wire, band and ID/OD saws that slice silicon, sapphire and other valuable raw crystals into wafers, prisms and other shapes. Our machines and skills are used mainly in the photovoltaic, semiconductor and optical industry. Meyer Burger offers a broad product portfolio from custom made cutting and slicing machines to fully automated and integrated wafer production lines. With its leading slicing technologies, Meyer Burger contributes considerably in reducing wafer manufacturing costs.

South Hall 1, Booth 6162 – 6169

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onefive

Onefive is a global supplier of industry-ready, low-noise ultrafast pulsed lasers as well as narrow-linewidth single-frequency lasers, engineered for OEM integration and with guaranteed 24/7 operation. The passively air-cooled lasers are as user-friendly as a laser pointer. The portfolio contains femtosecond and picosecond lasers in the 266-1590nm range, from single-shot to GHz repetition rates, as well as tunable single-frequency lasers with kHz linewidth for industrial and scientific applications.

SUSS MicroOptics

SUSS MicroOptics is a leading company for high-quality refractive and diffractive micro-optics. We comprise profound experience in optical design, micro-fabrication and metrology. Our leading edge manufacturing techniques are based on 200mm wafer technology in Quartz and Silicon. SUSS MicroOptics offers solutions and components that meet highest demands as required for semiconductor applications, medical applications, laser materials processing, fiber coupling, metrology, illumination and confocal microscopes.

SYNOVA

Synova is a manufacturer of advanced laser cutting systems for the semiconductor, electronic, automotive, solar, flat panel display, medical and watch making industries. Its proprietary Laser MicroJet[®] technology enables accuracy, quality and yield improvements in numerous precision manufacturing processes. Thanks to a hair thin water jet guiding the laser beam, an unsurpassed cut quality is achieved, without heat damage and deposition. Based in Switzerland, Synova is also well established in Asia and the USA.

WZWOPTICAG

At WZW we have been producing high-end optics and precision optical components for customers all over the world for more than 40 years. Based in Balgach, Switzerland, our innovative company is a market leader in the engineering and manufacture of high-end optics and opto-mechanical assemblies. From product design, product development to prototyping and series production.

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#S3, 5112

7355 E Orchard Rd Ste 100, Greenwood Village, CO, 80111
780/528-3770; fax 780/528-3771
softpub@infowebcom.com; www.infowebcom.com

Webcom Communications Corp. is an integrated media company serving advanced technology industries worldwide through its magazines, events, eNewsletters, online media, directories, buyers guides, data products and marketing services. Contact: Jessi Albers, Director of Sales, jessica@infowebcom.com.

Welch Allyn Lighting Products

#6904

4619 Jordan Rd, PO Box 187, Skaneateles Falls, NY, 13153
315/685-4347; fax 315/685-2854
www.walamp.com

New Product: High stability UV HPX lamp, Solarc NGX HID lamp, Solarc HID metal halide fiberoptic illuminator.

Manufacturer of high-performance lighting devices and technology for professional users and OEM's. We offer high quality and innovative custom lighting solutions. Our patent portfolio covers platforms of lamp wattages, technology types and system illuminators. Our engineering team manages wattage, output, lamp life, spectral characteristics, reflectors, bases and optics that integrate into other system components. Our products excel in the production of light from 320 nm into the near-IR. Contact: Doug Rutan, Marketing Manager, RutanD@welchallyn.com; Jim Kiesa, Sales Manager, KiesaJ@welchallyn.com.

Wells Research and Development

#5139

15 A Lewis St, Lincoln, MA, 01773
781/259-8667; fax 781/259-8675
info@wellsresearch.com; www.wellsresearch.com

New Product: New system for automatic lens testing, the OS400.

Manufacturer of modular optical test equipment, including hardware and software. Systems measure lens parameters and image quality in visible region and IR. Contract testing also available. Contact: Ben Wells, President, benw@wellsresearch.com.

Western Photonics Technology

#6002



626 S Sierra Vista Ave Ste 101, Alhambra, CA, 91801
626/289-1686
info@wptec.com; www.wptec.com

New Product: Sapphire and Germanium window, 0.8mm lens.

Headquarter in USA and factories in China. Develops and manufactures miniature optics (lens, prism, window), optics (window, lens, prism; filter), IR, visible, UV optics (Sapphire, Germanium, ZnSe, CaF₂), laser and optical crystals (Nd:YAG, BBO), coatings, optical system, fiber optics (fiber pigtail), borescopes (IR, visible, UV rigid / flexible borescope, high temperature borescope, endoscope, etc.), lasers (CTH:YAG laser, Nd:YAG laser, CO₂ laser), hologram (label). Contact: Roger Xie, North American Manager; Alison, alison@wptec.com.

Wiley-Blackwell

#6404

111 River St, Hoboken, NJ, 07030
201/748-6000; fax 201/748-6088
www.wiley.com

Wiley-Blackwell, the scientific, technical, medical and scholarly publishing business of John Wiley and Sons, is the world's leading society publisher and offers peer-reviewed primary research and evidence-based medicine across thousands of online journals, books, reference works and databases.

Williams Advanced Materials

#1800

2978 Main St, Buffalo, NY, 14214
716/837-1000; fax 716/833-2926
www.williams-adv.com

New Product: New materials for solar applications.

Williams Advanced Materials, Inc. is a leading global supplier of thin film deposition materials, microelectronic packaging products and PVD chamber services. High purity evaporation and sputtering materials, bonding wire, solder preforms and hermetic covers including Visi-lid's for sealing of optical devices are among the many options in the Williams product line. In-house refining and shield cleaning services help to minimize costs and inventory associated with precious metal usage. Contact: Kim Schoen, Marketing Specialist, Kimberly_Schoen@beminc.com; Mike Zasowski, Director of Marketing, michael_zasowski@beminc.com.

WISTA-MANAGEMENT GmbH

#1801

Rudower Chaussee 17, Berlin, Germany, 12489
49 30 6392 2200; fax 49 30 6392 2204
b.ludwig@wista.de; www.adlershof.de

WISTA-MANAGEMENT GMBH is the operating company for the Berlin Adlershof science and technology park. Berlin Adlershof is one of Europe's most successful centers of excellence for business and scientific research. On an area of 420 hectares, a modern city of science, technology and media has emerged, boasting more than 730 companies, which are focused on Photonic and Optical Technology, Material and Microsystems Technology, Information and Media Technology, Environmental, Biological and Energy Technology.

Wordingham Technologies

#343



580 Fisher Station Dr, Victor, NY, 14564
585/924-2294; fax 585/924-7660
dtrombly@wordingham.com; www.wordingham.com

World Star Technologies

#6226



321 Lesmill Rd, Toronto, ON, Canada, M3B 2V1
416/363-3332; fax 416/363-3112
info@worldstartech.com; www.worldstartech.com

New Product: Integrated computer controlled laser from 405nm to 1064nm up to 100mW power.

World Star Technologies specializes in manufacturing ultra compact energy efficient lasers which deliver high stability and low noise. Our goal is to introduce highly compact and efficient diode pumped lasers, which will enable applications previously considered unachievable. WST has recently introduced compact computer controlled (RS-232/USB) lasers with wavelengths ranging from 405nm to 1064nm. Contact: Emily Hodgkinson, Customer Support, emily@worldstartech.com; Cetin Karakus, CTO, info@worldstartech.com.

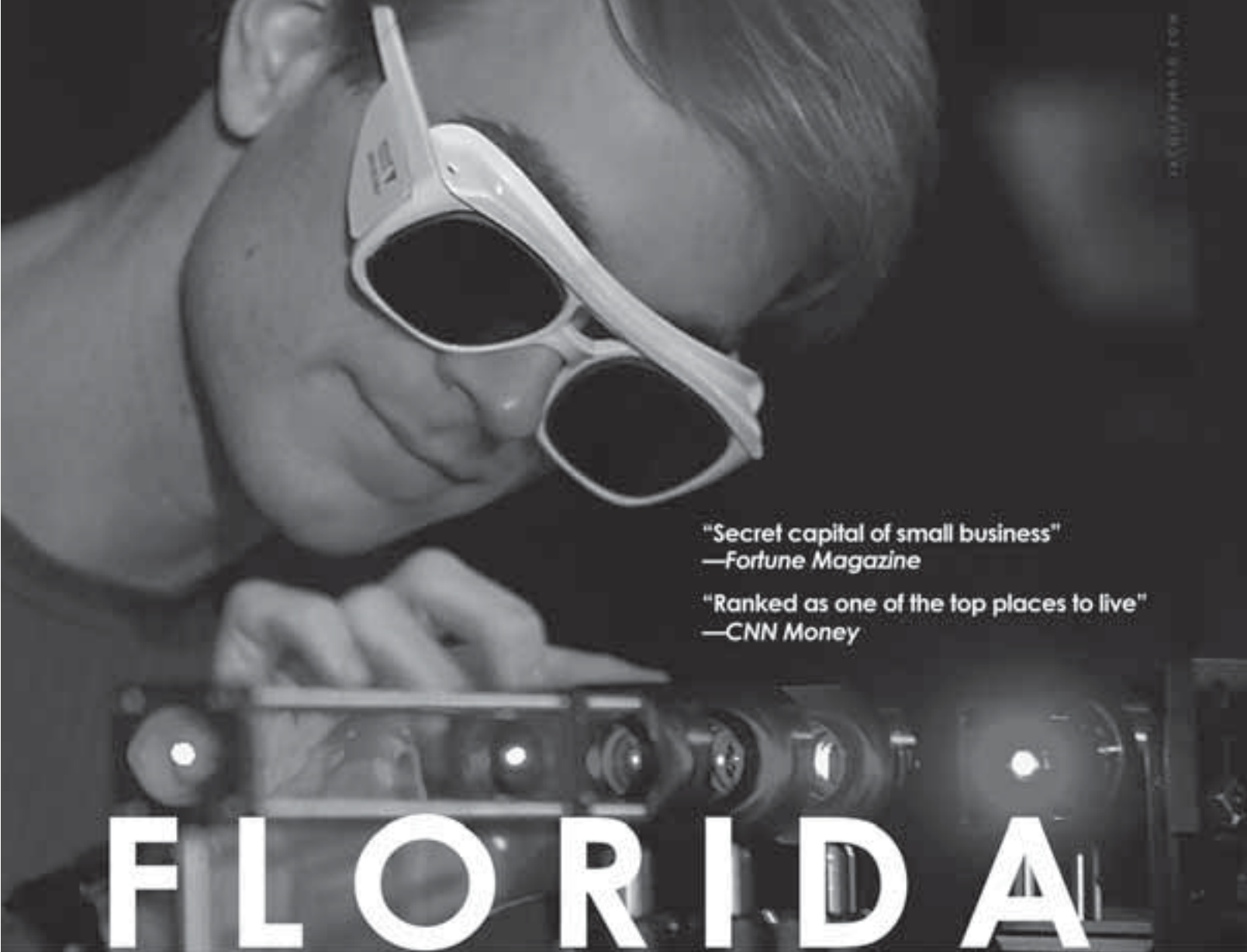
WT&T Inc.

#1700

5550 Boulevard Thimens, Saint Laurent, QC, Canada, H4R 2K9
514/804-0822; fax 514/551-0617
sales@wttechnology.com; www.wttechnology.com

New Product: Three channel fiber coupled LED source. Built in drivers and remote control inputs.

WT&T Inc. specializes in research and manufacturing of fiber coupled light sources, including semiconductor lasers, LED and SLED modules, specialty micro-lensed fibers and integrated optical fiber systems. WT&T develops customized fiber optical sources/system meeting challenging requirement such as fast modulation, power, spectral and polarization stability, output beam control. Contact WT&T for the solution meeting your specific needs. Contact: Connie Wang, Director, sales@wttechnology.com.



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CREOL, The College of Optics & Photonics



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wzw-optics AG



Wegenstr 18, Balgach, Switzerland, 9436
41 71 722 12 14; fax 41 71 722 12 40
optics@wzw.ch; www.wzw.ch

New Product: < 1 Å polishing capabilities MRF Technology - λ / 60 Opto- Mechanical Assemblies.

Swiss, but at home all over the world. At WZW we have been producing high-end optics and precision optical components for customers all over the world for more than 40 years. Based in Balgach, Switzerland, our innovative company is a market leader in the engineering and manufacture of high end optics and opto-mechanical assemblies. Product design, product development, quality assurance procedures to prototyping and series production. Contact: David Varrie, Sales and Marketing Manager, david@wzw.ch; Willi Weder.

#6163

YLX Corp.

960 Saratoga Ave Ste 117, San Jose, CA, 95129
408/249-6800; fax 408/249-3836
sales@ylxcorp.com; www.ylxcorp.com

New Product: Apus™; a high power, high brightness, solid-state illumination module for display applications.

YLX Corporation produces high performance solid-state light sources for consumer, industrial and medical applications based upon commercially available LEDs. This is accomplished through YLX's proprietary brightness-enhancement technology that yields cost-effective, high power, illumination modules, such as the Atria™ and Apus™ for applications in image display. Prototype systems for bio-diagnostic and specialized medical lighting applications are also under development (www.ylxcorp.com). Contact: Li Xu, Chief Executive Officer, lixu@ylxcorp.com; Bruce Craig, Consultant, bcraig@bbclgconsulting.com.

#6418

XenICs



Ambachtenlaan 44, Leuven, Belgium, 3001
32 16 38 99 00; fax 32 16 38 99 01
sales@xenics.com; www.xenics.com

New Product: XenICs' new "Gobi" uncooled microbolometer SMART camera.

XenICs is the leading developer of innovative infrared detection solutions for a wide range of applications. XenICs designs, manufactures and sells infrared detectors and cameras, both line scan and 2-D, covering the infrared wavelength ranges from 0.4 to 14 micrometers. In addition, XenICs delivers custom products according to the agreed specification and planning. Contact: Marketing and Sales Department.

#6265

Yokogawa Corp. of America

2 Dart Rd, Newnan, GA, 30265
770/254-0400; fax 770/254-1337
info@us.yokogawa.com; www.yokogawa.com/us

Yokogawa T&M division is showcasing their Optical Spectrum Analyzers, the former ANDO brand. The new AQ6370B provides a tenfold performance increase over its AQ6317B forefather. We're also demonstrating our NIR OSA (1200nm to 2400nm) AQ6375 in synchronization with our Multiple Application Test System, providing fast seamless testing. The world's most accurate gratings based OSA, the AQ6319, is also being exhibited. Stop by to discuss your application requirements including UV. Contact: Brad Byrum, VP Test and Measurement, info@us.yokogawa.com; Sophia Phillips, Marketing Assistant, sophia.phillips@us.yokogawa.com.

#6704

Xio-Photonics

Hengelosestraat 705, Enschede, The Netherlands, 7521 PA
31 53 4836688; fax 31 53 2011303
info@xiophotonics.com; www.xiophotonics.com

New Product: XiO Photonics offers high-contrast PLCs which are optically transparent from 400 nm up to 2 μm.

XiO Photonics designs and supplies optical chips and planar lightwave circuits (PLC) for use in telecom and datacom networks, and wireless communication applications. Products include passive and active optical components, e.g. splitters, line terminals, ROADMs, true-time delays, and beam-formers for smart antennas in wireless telecom base stations, avionics, astronomy, etc. Contact: Willem Hoving, CEO, w.hoving@xiophotonics.com; Douwe Geuzebroek, Product Specialist, d.h.geuzebroek@xiophotonics.com.

#6270

Z&Z Optoelectronics Tech. Co., Ltd.



No 13 4th Section Renmin Nan Lu, Chengdu, Sichuan, China, 610041
86 28 8521 6229; fax 86 28 8525 5889
sales@zzoptic.com; www.zzoptic.com

New Product: Our ZnSe manufacture technology reaches high level, meeting with high quality of S-D 20-10.

Z&Z Optoelectronics Tech Co., Ltd was established in 1998 in Chengdu Hi-Tech Zone, Sichuan Province, P. R. China in 1998. It is a professional Chinese leading manufacturer focusing on high precision infrared and laser optical components. By years experience and efforts, Z&Z has achieved a high tech level in the fields of IR optical components and laser application components. Our products have been supplying to quite some well reputed United States and European reputed customers for years. Contact: Kevin Zhang, President, zz_optic@vip.163.com; Cynthia Qi, Business Manager.

#6806

Xiton Photonics GmbH

Openstr 10, Kaiserslautern, Germany, 67661
49 631 627 5915; fax 49 176 212 59078
sales@xiton-photonics.com; www.xiton-photonics.com

Xiton Photonics GmbH produces pulsed DPSS laser systems for applications in industry and science. Our product portfolio consists of a variety of Q-switched, diode-laser-pumped solid-state laser systems with single transverse mode beam profile at high power densities. The standard laser systems are based on the wavelengths 1342 nm or 1064 nm. Non-linear frequency conversion options can be used to extend the wavelength range to 671 nm, 532 nm, 447 nm, 355 nm and 266 nm. Contact: Philip Crowley, phil@markettechinc.net.

#1627

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optates@schall-messen.de - www.schall-messen.de

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Zaber Technologies Inc. #6511



1777 W 75th Ave, Vancouver, BC, Canada, V6P 6P2
604/569-3780; fax 604/648-8033
contact@zaber.com; http://www.zaber.com/pw

New Product: T-RS: Precision rotation stage with built-in controller and RS232 serial port communications.

Zaber manufactures computer-controlled positioning devices, including linear actuators, mirror mounts, translation stages, rotation stages, motorized slides, joystick controllers and other motion control products. All of Zaber's products can be daisy-chained and controlled from a single serial or USB port, making precision automation affordable and easy. Contact: Bryan Cassidy, Marketing Manager, Jesse Schuhlein, Product Manager, jesse@zaber.com.

ZC&R Coatings for Optics, Inc. #2011

1401 Abalone Ave, Torrance, CA, 90501
310/381-3060; fax 310/782-9951
info@zcrcoatings.com; www.zcrcoatings.com

New Product: ZC&R has recently adopted a low cost precision etching process for transparent conductive coatings.

ZC&R has been providing precision optical coatings for over 25 years. ZC&R is fully equipped to provide in-house coating design, comprehensive testing and production in low, high and OEM quantities. A combination of in-house processing and strategic suppliers enables ZC&R to provide complete optical components. Our coatings include designs for UV up to the far-IR. We place an emphasis on closely helping our customers to succeed with every project. Contact: Jim Walker, Engineering Sales Manager, jwalker@zcrcoatings.com; Robert Cabrera, General Manager, rcabrera@zcrcoatings.com.

Zecotek Photonics Inc. #6708

6190 Agronomy Rd Ste 408, Vancouver, BC, Canada, V6T 1Z3
604/827-5212; fax 604/827-5217
info@zecotek.com; www.zecotek.com

Zecotek Photonics Inc. excels at inventing and delivering high performance photonics products to market. Zecotek's product portfolio includes laser cavity crystals, scintillation crystals, multi-pixel avalanche photodiodes, fiber lasers, solid state lasers and 3D displays. Zecotek products offer significant advantages in performance and costs for medical imaging, bioinstrumentation, scientific research, materials processing, homeland security and digital signage. Contact: Susana Mendez Alcala, Product Manager, info@zecotek.com.

ZEMAX Development Corp. #1917

3001 112th Ave NE Ste 202, Bellevue, WA, 98004-8017
425/822-3406; fax 425/889-4687
sales@zemax.com; www.zemax.com

ZEMAX Development Corporation publishes the ZEMAX® Optical Design Program which can be used for both sequential and non-sequential ray tracing. Our software can be used to conceptualize, design, optimize, analyze, tolerance and document virtually any optical system. ZEMAX® also goes beyond the traditional limits of ray tracing software by allowing users to use diffraction calculations to propagate any arbitrary beam through an optical system. Contact: Sales Department, Technical Support.



PLASMA SCREEN SPONSOR

Zeon Chemicals #6346

4111 Bells Ln, Louisville, KY, 40211
502/775-2000; fax 502/775-2025
askzeon@zeonchemicals.com; www.zeonex.com

New Product: ZEONEX® 340R COP, for blue laser applications where high light transmission at 400nm is required.

ZEONEX® and ZeonorFilm® cyclo-olefin polymer (COP) from ZEON are designed for high-precision optical components including camera lenses, mirrors, prisms, f-theta lenses and optical film applications. ZEONEX exhibits excellent transparency, low birefringence and superior moldability. Contact: Toshiro Katayama, Product Manager, zeonex@zeonchemicals.com.

Zeromicron, Inc. #6125



1482 N Fourth St, San Jose, CA, 95112
408/441-4600; fax 408/441-4602
info@zeromicron.com; www.zeromicron.com

New Product: Polishing Pad Conditioner/Dresser.

Zeromicron (www.zeromicron.com) manufactures a patented design of wafer/materials polishing templates, CMP Holders, geared-carriers and pad dressers, for any polishing machine. The ZM design allows the material to spin in the pocket, improving surface geometries. Zeromicron tools can polish different materials/substrates, shapes and thicknesses. ZeroMicron provides custom applications, excellent technical service and expeditious delivery. Contact: Charles Tiedemann, Vice President, Sales and Marketing, ctiedemann@zeromicron.com; Michael Smith, VP Operations, mcgmsmith@zeromicron.com.

Z-LASER Optoelektronik GmbH #6077



Merzhauser Str 134, Freiburg, Germany, 79100
49 761 29644 44; fax 49 761 29644 55
info@z-laser.de; www.z-laser.com

New Product: Precise, temperature-stabilized, high power ZQ-Laser in various wavelengths.

Founded in 1985, Z-LASER produces laser projection systems, which can be used as positioning aid for many types of applications in all kinds of industries. The laser-generated lines, points or crosses serve as markings with which you can exactly align and position the workpieces which are to be processed. Since 1994, Z-LASER holds an ISO 9001 certificate and fulfills the regular quality audits by important industrial purchasers in order to guarantee the high-quality standards of "Made in Germany". Contact: info@z-laser.de.

Zomega Terahertz Corp. #6317

1223 Peoples Ave, Troy, NY, 12180
518/833-0577; fax 518/833-6718
zomega@z-thz.com; www.z-thz.com

New Product: Second generation mini-Z offers high-dynamic range in an even smaller portable form factor!

Zomega Terahertz is a manufacturer of THz systems and components for Research and Development and industrial applications. Systems include both Time Domain Spectrometers (TDS) and Continuous Wave (CW) transceivers, useful for point measurement or imaging in both transmission and reflection geometries. The mini-Z TDS is the first truly portable, turnkey system to offer real-time spectroscopy for real-world applications, while the Z-2 TDS offers lab-based high-dynamic range performance. Contact: Thomas Tongue, Chief Executive Officer, ttongue@zomega-terahertz.com.



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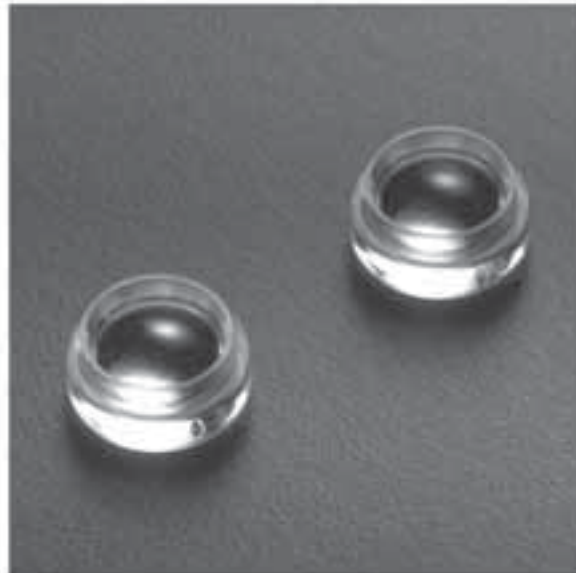
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Swift Glass Co.
SwissOptic AG

Sydor Optics, Inc.
T&C Plastic Moulding Pte Ltd.
Techmetals, Inc.
TecOptics
Tempo Clean Room Foam
The China and South Optical Crystals Co.
Toray Precision Co., Ltd.
Tower Optical Corp.
TwinStar Optics
Umicore Thin Film Products
Unioriental Optics Co., Ltd.
Valley Design Corp.
VisiMax Technologies, Inc.
Wangi Industrial Co Pte Ltd.
Williams Advanced Materials
wzw-optics AG
ZC&R Coatings for Optics, Inc.
Zeromicron, Inc.
Zygo Corporation

High Speed Imaging and Sensing

Adimec
ALLVIA, Inc.
ALPAO
Andor Technology Plc
AZURE Photonics Co. Ltd.
Bordeaux Route des Lasers
Boulder Nonlinear Systems, Inc.
Brimrose Corporation of America
Clear Align
Computer Modules, Inc.
Cooke Corp., The
Crystal Technology, Inc.
Dynamics Research Corp.
e2v
Eagleyard Photonics GmbH
Electro-Optical Products Corp.
Electrophysics Corp.
Elforlight Ltd.
Epix, Inc.
Fairchild Imaging
FEMTO Messtechnik GmbH
Femtochrome Research, Inc.
FLIR Systems, Inc.
Harold Johnson Optical Labs.
Incom, Inc.
Infinite Graphics Incorporated
INNO-SPEC GmbH
JML Optical Industries Inc.
Kent Optronics, Inc.
Kyocera America Inc.
Lambert Instruments
Laser Components DG, Inc.
Lightspeed Technologies
Lincoln Laser Co.
LINOS Photonics
Mad City Labs, Inc.
National Instruments
Novacam Technologies Inc.
nPoint, Inc.
O2view B.V.
OneLight Corp.

OptoElectronic Components (OEC)
Opto-Precision Pte Ltd.
Optronic Laboratories, Inc.
P&P Optica
PerkinElmer, Inc.
PhaseView
Photek, Ltd.
Photonics Industries International,



Inc.
Photon
PI (Physik Instrumente) L.P. Piezo Nano Positioning
PicoQuant GmbH
Pulse Instruments
QImaging
Quantum Composers
Quest Innovations B.V.
Salvador Imaging
Schneider Optics, Inc.
Seiwa Optical America Inc.
Sheaumann Laser Inc.
Spectrolab, Inc.
Stanford Computer Optics, Inc.
Stanford Photonics, Inc.
Sutter Instrument Co.
Sydor Instruments LLC
Texas Instruments DLP
Thorlabs, Inc.
Vision Research Inc.
XenICs

Illumination Engineering

AF Optical Co.
Asahi Spectra USA Inc.
ASML Optics
Breault Research Organization
CeramOptec Industries, Inc.
Collimated Holes, Inc.
Deposition Sciences, Inc.
DiCon Fiberoptics, Inc.
Diffractive Optics Ltd.
Docter Optics, Inc.
EPIGAP Optoelektronik GmbH
Fiberguide Industries, Inc.
Fiber optic Systems, Inc.
Fiberoptics Technology Inc.
Foreal Spectrum, Inc.
GD Optical Competence GmbH
Image Engineering Dietmar Wüller
Inlight Precision Optics Co., Ltd.
Innovations In Optics, Inc.
Innovative Photonic Solutions

Photonics West Product Index

InPhenix Inc.
Lightspeed Technologies
LIMO Lissotschenko Mikrooptik GmbH
Luminit LLC
Mightex Systems
OpSys Project Consulting
Optical Research Associates
Optics for Hire
Orb Optronix, Inc.
Photon Engineering, LLC
Photonics Industry & Technology Development Association (PIDA)
QPC Lasers, Inc.
RPC Photonics, Inc.
Sill Optics GmbH & Co., KG
SMA Optical Technologies, Inc.
Visitech AS
YLX Corp.

Infrared Sources, Detectors, Systems

Accuratus Corp.
Advanced Laser Diode Systems A.L.S. GmbH
Alpes Lasers SA
Ametek HCC Industries
Analog Modules, Inc.
Andor Technology Plc
Applied Optronics
Ayase America, Inc.
Blue Sky Research
Boston Electronics Corp.
Cal Sensors, Inc.
Calmar Optcom, Inc.
Chunghwa Telecom Labs.
Clear Align
Coastal Optical Systems, Inc.
CRI, Inc.
CryLaS GmbH
Crystran Ltd.
Daylight Solutions
Del Mar Photonics, Inc.
EKSPLO UAB
Electro Optical Components Inc.
Electro-Optical Systems, Inc.
Electro-Optics Technology, Inc.
Electrophysics Corp.
EPIGAP Optoelektronik GmbH
Epitaxial Technologies, LLC
Eptner Technology, Inc.
EXALOS AG
Exciton, Inc.
Fastlite
Fianium Inc.
FJW Optical Systems, Inc.
FLIR Government Systems
FLIR Systems, Inc.
Frankfurt Laser Co.
Fraunhofer Heinrich Hertz
GPD Optoelectronics Corp.
Guojing Infrared Optical Technology Co., Ltd.
Hamamatsu Corp.

HEETRONIX, Inc.
Helioworks, Inc.
High Tech Photonics
Holochip Corp.
id Quantique SA
IMPEX HighTech GmbH
Infrared Focal Systems, Inc.
Infratec Infrared LLC
Inlight Precision Optics Co., Ltd.
INNO-SPEC GmbH
Innovative Photonic Solutions
INO
Inrad a PPGI company
International Light Technologies
JENOPTIK Laser, Optik, Systeme GmbH - Lasers Business Unit
JT Ingram Sales & Marketing
Kent Optronics, Inc.
KLASTECH - Karpushko Laser Technologies GmbH
Kyosemi Opto America Corp.
Laser Components DG, Inc.
LASER COMPONENTS IG, Inc.
LightTrans GmbH
Lockheed Martin Aculight
MegaWatt Lasers, Inc.
MeshTel - INTELITE



Meyer Burger Technology Corp.
Micro Photon Devices
neoplas control GmbH
New England Photoconductor Corp.
Novotech, Inc.
Nuferr
Olis, Inc.
Onefive GmbH
On-Trak Photonics, Inc.
OPOTEK, Inc.
Opto Diode Corp.
OptoElectronic Components (OEC)
Optron Laboratories, Inc.
Orbits Lightwave, Inc.
OSRAM Opto Semiconductors
Paradigm Lasers, Inc.
PerkinElmer, Inc.
PHASICS SA
Philips Technologie GmbH U-L-M Photonics
Photon etc.
Photonics Industries International, Inc.
PicoQuant Photonics North America, Inc.
PLANSEE Thermal Management

Solutions
PolarOnyx, Inc.
Pranalytica, Inc.
Primes GmbH
QPC Lasers, Inc.
QPhotonics, LLC
Redfern Integrated Optics, Inc.
Reynard Corp.
Rising Electro-Optics Ltd.
Roithner Lasertechnik GmbH
SCD-SemiConductor Devices
Scientech, Inc.
Sensors Unlimited, Inc., part of Goodrich Corporation
Sheaumann Laser Inc.
Sinclair Manufacturing Co.
Specim Spectral Imaging Ltd.
Spectrolab, Inc.
Spectrum Detector Inc.
Stanford Photonics, Inc.
StellarNet, Inc.
Sumipro
SUPERLUM
Sydor Instruments LLC
TEC Microsystems GmbH
Teledyne Judson Technologies
TELOPS Inc.
Thermo Scientific, Scientific Instruments
Thermoteknix Systems Ltd.
Time Bandwidth, Inc.
Trioptics GmbH
ULIS
VIGO Systems SA
Wavelength Technology Singapore Pte Ltd.
Welch Allyn Lighting Products
World Star Technologies
XenICs

Ion-Beam Lithography

IMT Masken und Teilungen AG
Ion Beam Milling Inc.
Nalux Co., Ltd.

Lasers and Other Light Sources, Laser Accessories, Laser Systems

4AD Enterprises, Inc.
Access Laser Co.
Accuratus Corp.
Acteron Corporation
Advanced Laser Diode Systems A.L.S. GmbH
Akela Laser Corp.
Alfaight
ALLVIA, Inc.
Alpes Lasers SA
Alps Electric Co., Ltd.
Altos Photonics, Inc.
Ametek HCC Industries
Amplitude Systemes

Amplitude Technologies
Anteryon BV
APE - Angewandte Physik und Elektronik GmbH
Apollo Instruments, Inc.
Applied Laser Engineering Ltd.
Applied Optronics
Applied Photon Technology, Inc.
Arden Photonics Ltd.
ARGES GmbH
Arroyo Instruments
Automation Engineering Inc. (AEI)
Avensys Tech/ITF labs.
Avo Photonics, Inc.
Axcel Photonics Inc.
Ayase America, Inc.
B&W Tek, Inc.
Beamtech
Beamtech Optronics Co. Ltd.
Becker & Hickl GmbH
Beijing Century Sunny Technology Co., Ltd.
Beijing Delfa Optoelectronics Inc.
Beijing Opto-Electronics Technology Co., Ltd. (BOET)
Biophotonic Solutions, Inc.
Blue Sky Research
Bordeaux Route des Lasers
Boston Electronics Corp.
Bright Solutions
Bristol Instruments, Inc.
Brush Ceramic Products
BWT Beijing Ltd.
Calmar Optcom, Inc.
Cambridge Technology, Inc.
Canadian Institute for Photonics Innovations
Capovani Brothers Inc.
CASTECH Inc.
Cedova B.V.
CeramOptec Industries, Inc.
Changchun New Industries Optoelectronics Tech. Co.
CLASER Photonics Inc.
Clear Align
Cobolt AB
Coherent Inc.
Conex Systems Technology, Inc.
Continuum
CRI, Inc.
Crosslight Software, Inc.
CryLaS GmbH
Crystal Fibre
Crystal GmbH
Crystal Research, Inc.



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Crystalaser LC
 CRYSTECH Inc.
 Curamik Electronics Inc.
 Dausinger+Giesen
 Daylight Solutions
 Dayoptics, Inc.
 Del Mar Photonics, Inc.
 DenseLight Semiconductors Pte Ltd.
 DILAS
 DongWoo Optron Co., Ltd.
 DPSS Lasers Inc.
 Eagleyard Photonics GmbH
 EKSPALA UAB
 Electro Optical Components Inc.
 Electro-Optical Products Corp.
 Electro-Optics Technology, Inc.
 Elforlight Ltd.
 Elliot Scientific Ltd.
 Energetiq Technology, Inc.
 EOLITE Systems
 Epner Technology, Inc.
 EXALOS AG
 Exciton, Inc.
 Fastlite
 Femtochrome Research, Inc.
 FEMTOLASERS, Inc.
 Fenix Technology
 Fianium Inc.
 Fibercryst
 Fiberguide Industries, Inc.
 FiberLabs Inc.
 Fiberoptics Technology Inc.
 Filtech Photonics Co., Ltd.
 FJW Optical Systems, Inc.
 Frankfurt Laser Co.
 Fraunhofer Heinrich Hertz
 Fraunhofer ILT
 GAGGIONE
 GEL-PAK
 General Atomics
 Gentec Electro-Optics Inc.
 Global Laser Ltd.
 Gold Dragon Optics Co., Ltd.
 Gorman Rupp Industries
 Guojing Infrared Optical Technology Co., Ltd.
 Hagitec Co., Ltd.
 Helioworks, Inc.
 Hellma USA, Inc.
 High Q Laser (US), Inc.
 High Tech Photonics
 Hinds Instruments, Inc.
 Hofstadter Analytical Services
 HOLOEYE Photonics AG
 HORIBA Jobin Yvon Inc.
 Huanic Corp.
 id Quantique SA
 Imagine Optic
 IMM Photonics GmbH
 IMPEX HighTech GmbH
 IMRA America, Inc.
 Infinite Optics Inc.
 Infrared Fiber Systems
 INGENERIC GmbH

Innolume GmbH
 Innovations In Optics, Inc.
 Innovative Photonic Solutions
 INO
 InPhenix Inc.
 Inrad a PPGI company
 Intense Ltd.
 International Radiation Detectors, Inc.
 IntraAction Corp.
 IPG Photonics Corp.
 Isomet Corp.
 iXFiber SAS
 JDSU
 JENOPTIK Diode Lab GmbH
 JENOPTIK Laser, Optik, Systeme GmbH - Lasers Business Unit
 JENOPTIK Laserdiode GmbH
 Kaiser Systems, Inc.
 Keopsys Inc.



Kigre, Inc.
 Kimmon Electric US, L.P.
 Kiyohara Optics USA
 KLASTECH - Karpushko Laser Technologies GmbH
 Koheras A/S
 Kyosemi Opto America Corp.
 Lambert Instruments
 Lanmark Controls Inc.
 Laser 2000 Benelux CV
 Laser 2000 GmbH
 Laser Components Canada
 Laser Components GmbH
 LASER COMPONENTS IG, Inc.
 Laser Diode, Inc.
 Laser Drive, Inc.
 Laser Institute of America
 Laser Materials Corp.
 Laser Optics Berlin
 Laser Research Optics
 Laser Safety Industries
 Laser Scanning Solutions
 Laser Zentrum Hannover e.V.
 Laser-compact Co., Ltd.
 Laser-export Co. Ltd.
 Laserline Inc.
 Lasertel
 LASOS Lasertechnik GmbH
 Lee Laser, Inc.
 LEYSOP Ltd.
 Light Age, Inc.
 Light Conversion Ltd.
 Light Guide Optics Germany GmbH
 Lightel Technologies
 LightTrans GmbH
 LightVision Technologies, Corp.
 LIMO Lissotschenko Mikrooptik GmbH
 Lincoln Laser Co.
 Litron Lasers of North America
 Lockheed Martin Aculight
 Lumera Laser GmbH
 Luna Technologies
 M Squared Lasers Ltd.
 m2k-laser GmbH
 MANLIGHT
 Market Tech, Inc.
 MegaWatt Lasers, Inc.
 Meller Optics, Inc.
 MeshTel - INTELITE
 Micro Laser Systems, Inc.
 Microcertec
 Mindrum Precision, Inc.
 Mitsubishi Cable Industries, Ltd.
 Modulight, Inc.
 Morgan Technical Ceramics
 MPB Communications Inc.
 Multiwave Photonics
 Nanoplus Nanosystems and Technologies GmbH
 neoplas control GmbH
 New Source Technology, LLC
 Newport Corp.
 nLIGHT Corp.
 NM Laser Products Inc.
 NOIR LaserShield
 Northrop Grumman Cutting Edge Optronics
 NovaWave Technologies
 NP Photonics
 NTT Electronics Corp.
 Nufern
 NuPhoton Technologies, Inc.
 Omicron Laserage GmbH
 Ondax, Inc.
 Onefive GmbH
 OneLight Corp.
 Ophir-Spiricon, Inc.
 Opnext, Inc.
 OPOTEK, Inc.
 OpTek Systems, Inc.
 Opti Temp, Inc.
 OptiGrate
 OptiSwitch Technology Corp.
 OSRAM Opto Semiconductors
 OXXIUS
 OZ Optics Ltd.
 Pacific Coast Optics
 Paradigm Lasers, Inc.
 Paul Pleiger Maschinenfabrik GmbH & Co. KG
 Pavilion Integration Corp.
 PD-LD, Inc.
 Philips Technologie GmbH U-L-M Photonics
 Photon Engineering, LLC
 Photon etc.
 Photon Systems, Inc.

Photonic Cleaning Technologies
 Photonic Products Ltd.
 Photonics Industries International, Inc.
 Photop Technologies, Inc.
 PicoQuant GmbH
 PicoQuant Photonics North America, Inc.
 PLANSEE Thermal Management Solutions
 Point Source
 PolarOnyx, Inc.
 Power Technology, Inc.
 Powerlase
 Pranalytica, Inc.
 Precision Optical
 Primes GmbH
 Pyrophotonics Lasers Inc.
 Qioptiq Group
 QPC Lasers, Inc.
 QPhotonics, LLC
 Quantronix Corp.
 Quantum Composers
 Raicol Crystals Ltd.
 Raylase AG
 Redfern Integrated Optics, Inc.
 Remtec, Inc.
 Research Electro-Optics, Inc.
 Reynard Corp.
 Ricmar Sales & Service, Inc.
 Rocky Mountain Instrument Co.
 Roithner Lasertechnik GmbH
 RoMack, Inc.
 RPMC
 Sacher Lasertechnik GmbH
 Saint-Gobain Crystals
 Sarnoff Corp.
 SCANLAB America, Inc.
 SCD-SemiConductor Devices
 Scientech, Inc.
 Seikoh Giken USA Inc.
 Semrock, Inc.
 Sheumann Laser Inc.
 Snake Creek Lasers, LLC



Spectra-Physics/A division of Newport Corporation
 Spectrogon US Inc.
 Sperian Protection
 SPI Lasers plc
 Standa
 StockerYale, Inc.
 Sumitomo Metal Mining Co. Ltd.
 SUPERLUM
 SUSS MicroOptics SA
 Sutter Instrument Co.

Photonics West Product Index



Swamp Optics, LLC
Sydor Instruments LLC
Symphotic TII Corp.
Synova SA
Taboada Research Instruments, Inc.
TDK-Lambda Americas Inc.
TEC Microsystems GmbH
TecOptics
Teraxion Inc.
Termotek USA, LLC
Thales Laser SA
ThermoTek Inc.
Time Bandwidth, Inc.
Toptica Photonics, Inc.
Triad Technology Inc.
TRUMPF Inc.
UltraVolt, Inc.
Unioriental Optics Co., Ltd.
Vescent Photonics
V-Gen
Vincent Associates
Vixar
Vortran Laser Technology, Inc.
VueMetrix
Vytran LLC
Wavelength Electronics, Inc.
Welch Allyn Lighting Products
Western Photonics Technology
World Star Technologies
WT&T Inc.
Xiton Photonics GmbH
YLX Corp.
Zecotek Photonics Inc.
Z-LASER Optoelektronik GmbH

Law Enforcement Technologies

Harris Corp.
Intevac Photonics, Inc.
Rubicon Technology, Inc.
Sens-Tech Ltd.

Life Sciences

ALPAO
Apogee Instruments, Inc.
Asahi Spectra USA Inc.
AT-Fachverlag GmbH
Avantes, Inc.
Berliner Glas US
Blue Sky Research
Chroma Technology Corp
Cobolt AB
Cooke Corp., The
Critical Link LLC

CryLaS GmbH
Crystal Technology, Inc.
CrystaLaser LC
Dynamics Research Corp.
Eforlight Ltd.
Elliot Scientific Ltd.
EM4, Inc.
Energetiq Technology, Inc.
Fianium Inc.
FiberTech GmbH Special Optical Fiber Technologies
Fraunhofer Institute for Photonics Microsystems (IPMS)
Grintech GmbH
HB Optical Technology Co., Ltd.
INO
JENOPTIK Laser, Optik, Systeme GmbH - Lasers Business Unit
Lambert Instruments
Laser Optics Berlin
Laser Zentrum Hannover e.V.
LASOS Lasertechnik GmbH
Leica Microsystems CMS GmbH
LEONI Fiber Optics GmbH
Light Age, Inc.
Mad City Labs, Inc.
Market Tech, Inc.
Mindrum Precision, Inc.
Morgan Technical Ceramics
Nanonics Imaging Ltd.
Nanoscribe GmbH
Nerac, Inc.
Newport Corp.
NOIR LaserShield
O2view B.V.
Olis, Inc.
Omicron Laserage GmbH
OPOTEK, Inc.
OPTICS 1, Inc.
Optics Technology, Inc.
Opto-Precision Pte Ltd.
OXXIUS
P&P Optica
PerkinElmer, Inc.
PhaseView
Photon Systems, Inc.
PI (Physik Instrumente) L.P. Piezo Nano Positioning
Point Source
QImaging
Siskiyou Corp.
Steinmeyer, Inc.
SUSS MicroOptics SA
SwissOptic AG
TATSUTA ELECTRIC WIRE & CABLE CO., LTD.
Technobis Group
Thermo Scientific, Scientific Instruments
Toptica Photonics, Inc.
Translume, Inc.
Vortran Laser Technology, Inc.
Welch Allyn Lighting Products
XenICs
YLX Corp.
Zecotek Photonics Inc.

Metrology, Inspection and Process Control

4D Technology Corp.
Abet Technologies, Inc.
Aerotech, Inc.
AF Optical Co.
ALPAO
AMO WaveFront Sciences, LLC
Arden Photonics Ltd.
Arroyo Instruments
attocube systems AG
AudioDev USA, Inc.
Avantes, Inc.
B&W Tek, Inc.
Bid Service
Bordeaux Route des Lasers
Canadian Photonics Fabrication Centre (CPFC)
Canon U.S.A.
Capovani Brothers Inc.
Critical Link LLC
CrystaLaser LC
Davidson Optronics, Inc.
Dioptic GmbH
Electron Tubes
Electro-Optical Industries, Inc.
Eforlight Ltd.
Engineered Surface Finishes, A Group of Cabot Microelectronics Corp.
Engineering Synthesis Design, Inc.
FIBERPRO USA
Fibertech Optica
ficonTEC
fineoptix GmbH
Flemming Tinker, LLC
Flowstar, Inc.
GEL-PAK



G-S PLASTIC OPTICS
Headwall Photonics
Hinds Instruments, Inc.
ilis GmbH
Imagine Optic
IMT Masken und Teilungen AG
JENOPTIK Laser, Optik, Systeme GmbH - Optics Business Unit
KLA-Tencor Corp.
Krell Technologies
Laser Scanning Solutions
Lightspeed Technologies
LINOS Photonics
M Squared Lasers Ltd.
Mad City Labs, Inc.

MANLIGHT
Max Levy Autograph, Inc.
Mildex, Inc.
Minus K Technology, Inc.
MLOptic Corp.
Multiwave Photonics
Navitar
Novacam Technologies Inc.
nPoint, Inc.
Okamoto Optics Co., Ltd.
Omicron Laserage GmbH
Optical Systems Corp. (OSC)
Optics Technology, Inc.
OptiPro Systems
OptoTech Optikmaschinen GmbH
Optronic Laboratories, Inc.
OXXIUS
P&P Optica
PhaseView
PHASICS SA
Piezosystem Jena, Inc.
Plymouth Grating Laboratory
POG Precision Optics Gera
Precitech, Inc.
Primes GmbH
PROMET International Inc.
QED Technologies, Inc.
Qioptiq Group
QPhotonics, LLC
Ricmar Sales & Service, Inc.
Sarnoff Corp.
Specim Spectral Imaging Ltd.
Spectrum Detector Inc.
Spectrum Thin Films Corp.
Steinmeyer, Inc.
SUSS MicroOptics SA
SwissOptic AG
tec5USA
Texas Instruments DLP
Thermo Scientific, Scientific Instruments
Toptica Photonics, Inc.
Triad Technology Inc.
Trioptics GmbH
Vermont Photonics, Inc.
Vescent Photonics
V-Gen
Vincent Associates
VLOC
Vortran Laser Technology, Inc.
Wells Research & Development
Zygo Corporation

Nanotechnology

A Glass Technology Enterprise Corp.
Access Optics LLC
ALIO Industries
AllMotion
attocube systems AG
Avantes, Inc.
Bid Service
Boulder Nonlinear Systems, Inc.
Canadian Institute for Photonics Innovations
Carolinas Photonics Consortium

Clemson University - COMSET
Coining, Inc.
Cooke Corp., The
Critical Link LLC
Del Mar Photonics, Inc.
Diffractive Optics Ltd.



Elforlight Ltd.
Emerging Material Technologies, Inc.
EpiWorks, Inc.
Equipment Acquisition Resources, Inc.
Fiber Optic Center, Inc.
Fraunhofer Institute for Applied Optics and Precision Engineering IOF
Fresnel Optics GmbH
HORIBA Jobin Yvon Inc.
Intlvac
Kohoku Kogyo Co., Ltd.
Kurt J. Lesker Company
Laser Zentrum Hannover e.V.
LightSmyth Technologies, Inc.
Lumera Laser GmbH
Mad City Labs, Inc.
MICOS USA, LLC
Milestone Technology
Mindrum Precision, Inc.
Minus K Technology, Inc.
Nanonics Imaging Ltd.
Nanoscribe GmbH
Nerac, Inc.
Nextreme Thermal Solutions, Inc.
Norland Products Inc.
Northrop Grumman Synoptics
NP Photonics
nPoint, Inc.
Olis, Inc.
Optiwave Systems Inc.
Phoenix B.V.
Photonic Cleaning Technologies
PI (Physik Instrumente) L.P. Piezo Nano Positioning
PiezoMotor AB
Piezosystem Jena, Inc.
Plasmaterials, Inc.
Precitech, Inc.
Process Materials Inc.
Savimex
Scottish Development International
Spectrum Scientific, Inc.
Steinmeyer, Inc.
Symphotic TII Corp.
Technobis Group

Thermo Scientific, Scientific Instruments
Universal Photonics, Inc.
Valley Design Corp.
VI Systems GmbH
Vistec Electron Beam Lithography Group

Non-Optical Lithography

Vistec Electron Beam Lithography Group

Optical Components

4D Technology Corp.
A Glass Technology Enterprise Corp.
Access Optics LLC
Accina, Inc.
AccuCoat, Inc.
Accumold
Acteron Corporation
Active Optics - Night N (opt) Ltd.
Acton Optics & Coatings, Div. of Princeton Instruments
Advanced Microoptic Systems GmbH
Advanced Photonix Inc.
Advanced Thin Films
AF Optical Co.
AFL Telecommunications
Alphion Corp.
Alps Electric Co., Ltd.
Ametek HCC Industries
AMO WaveFront Sciences, LLC
Anchor Optics
Andover Corp.
Anteryon BV
Apollo Instruments, Inc.
Apollo Optical Systems, Inc.
Applied Image Inc.
APS Optics
Archer OpTx, Inc.
ARGES GmbH
Argus International, Ltd.
Argyle International Inc.
Asahi Spectra USA Inc.
asphericon GmbH
AT-Fachverlag GmbH
Automation Engineering Inc. (AEI)
Avensys Tech/ITF labs.
Avo Photonics, Inc.
Ayase America, Inc.
AZURE Photonics Co. Ltd.
Barr Associates Inc.
BaySpec, Inc.
Beijing Century Sunny Technology Co., Ltd.
Beijing Delfa Optoelectronics Inc.
Beijing Glass Research Institute
Beijing Opto-Electronics Technology Co., Ltd. (BOET)
Berliner Glas US
Blue Ridge Optics LLC
BMV Optical Technologies Inc.
Boulder Nonlinear Systems, Inc.

Brush Ceramic Products
Cambridge Technology, Inc.
Canon U.S.A.
CASIX, Inc.
CASTECH Inc.
Cedova B.V.
China Daheng Group Inc.
China Opto-Electro Industries, Co., Ltd.
Chiral Photonics, Inc.
Chroma Technology Corp
CLASER Photonics Inc.
Coastal Connections
Coastal Optical Systems, Inc.
Coining, Inc.
Computer Optics Inc.
Conex Systems Technology, Inc.
Coresix Precision Glass, Inc.
CRI, Inc.
Cristal Laser SA
Cryslaser Inc.
Crystal Fibre
Crystal GmbH
Crystal Research, Inc.
Crystal Systems, Inc.
Crystal Technology, Inc.
CRYSTECH Inc.
Crystran Ltd.
Davidson Optronics, Inc.
Dayoptics, Inc.
Del Mar Photonics, Inc.
DELTA Light & Optics
Delta Optics Technologies Pte Ltd.
DenseLight Semiconductors Pte Ltd.
Deposition Sciences, Inc
DiCon Fiberoptics, Inc.
Diemat, Inc.
Diffractive Optics Ltd.
Docter Optics, Inc.
Dominar, Inc.
Doric Lenses Inc.
Dyna Technologies, Inc.
Dynamics Research Corp.
Edmund Optics
EGIDE
EKSMA Optics
Electro Optical Components Inc.
Electro-Optical Industries, Inc.
Electro-Optics Technology, Inc.
EM4, Inc.
Empire West Plastics
Enablence Technologies
Engineered Surface Finishes, A Group of Cabot Microelectronics Corp.
EOspace, Inc.
EpiWorks, Inc.
Evaporated Coatings, Inc.
EXALOS AG
Fairfield Crystal Technology, LLC
FEMTOLASERS, Inc.
Fibercryst
FiberTech GmbH Special Optical Fiber Technologies

Filtech Photonics Co., Ltd.
fineoptix GmbH
Flemming Tinker, LLC
FLIR Government Systems
Foctek Photonics, Inc.
Foreal Spectrum, Inc.
Fotofab
Fraunhofer ILT
Fraunhofer Institut für Silicidforschung
Fraunhofer Institute for Applied Optics and Precision Engineering IOF
Fresnel Optics GmbH
Fresnel Technologies Inc.
Frontier Optics Inc.
Fuzhou Alpha Optics Co., Ltd.
GAGGIONE
Gamdan Optics
Gavish, Inc.
GD Optical Competence GmbH
General Atomics
Gold Dragon Optics Co., Ltd.
Gooch & Housego (UK) Ltd.
Grintech GmbH
G-S PLASTIC OPTICS
Guojing Infrared Optical Technology Co., Ltd.
Gurley Precision Instruments, Inc.
Hamamatsu Corp.
Hangzhou Photographic Machinery Research Institute
Harold Johnson Optical Labs.
HB Optical Technology Co., Ltd.
HC Photonics Corp
Headwall Photonics
Helioworks, Inc.
Hellma USA, Inc.
Heptagon
Heraeus Quartz America
Hilger Crystals Ltd.
Hitachi High Technologies America, Inc.
Hofstadter Analytical Services
Holochip Corp.
HOLOEYE Photonics AG
HORIBA Jobin Yvon Inc.
HTA Photomask
Huanic Corp.
Ibsen Photonics
II-VI Infrared
IMM Photonics GmbH
IMPEX HighTech GmbH
IMT Masken und Teilungen AG
Incom, Inc.
Infinite Graphics Incorporated
Infinite Optics Inc.



Photonics West Product Index

- INGENERIC GmbH
Inlight Precision Optics Co., Ltd.
Intense Ltd.
International Radiation Detectors, Inc.
IntraAction Corp.
Ion Beam Milling Inc.
IRD Glass
Iridian Spectral Technologies
IRphotonics
Isomet Corp.
Isuzu Glass Inc.
iXFiber SAS
Janos Technology, Inc.
JDSU
JENOPTIK Laser, Optik, Systeme GmbH - Microoptics Business Unit
JENOPTIK Laser, Optik, Systeme GmbH - Optics Business Unit
JENOPTIK Polymer Systems, Inc.
JML Optical Industries Inc.
JT Ingram Sales & Marketing
Kaiser Optical Systems, Inc.
Kaleido Technology ApS
Kent Optronics, Inc.
Keting Optical Technology Inc.
Kiyohara Optics USA
Kohoku Kogyo Co., Ltd.
Kreischer Optics, Ltd.
Kugler of America LTD
Kyocera America Inc.
L-3 Communications, Tinsley Laboratories, Inc.
Labsphere, Inc.
LaCroix Optical Co.
Lambda Research Optics Inc.
Laser 2000 Benelux CV
Laser 2000 GmbH
Laser Components GmbH
Laser Diode, Inc.
Laser Materials Corp.
Laser Optics, a PPGI company
Laser Research Optics
Laser Zentrum Hannover e.V.
Lattice Electro Optics, Inc.
Leica Microsystems CMS GmbH
LEISTER Technologies
LEONI Fiber Optics GmbH
LEYSOP Ltd.
Liebmann Optical Co.
Lightel Technologies
LightSmyth Technologies, Inc.
LIMO Lissotschenko Mikrooptik GmbH
Lincoln Laser Co.
LINOS Photonics
Lionix B.V.
Luminit LLC
m-u-t America Inc.
Max Levy Autograph, Inc.
MegaWatt Lasers, Inc.
Meller Optics, Inc.
MEMS Optical Inc.
MeshTel - INTELITE
Micro Laser Systems, Inc.
- Micro Photon Devices
Microcertec
Micron Optics, Inc.
Mindrum Precision, Inc.
MLOptic Corp.
Molded Plastic Optics, LLC
Monocrystal, Inc.
Moore NanoTechnology Systems LLC
Moulded Optics GmbH
MPA Crystal Corp.
MPB Communications Inc.
MRC Optics, a PPGI company
mso jena GmbH
Naked Optics Corp.
Nalux Co., Ltd.
Nanjing Sapphire Electro-Optics Co., Ltd.
Navitar
neoplas control GmbH
New England Photoconductor Corp.
New Source Technology, LLC
Nextreme Thermal Solutions, Inc.
nLIGHT Corp.
NM Laser Products Inc.
North American Coating Laboratories
Northrop Grumman Synoptics
NovaWave Technologies
Novotech, Inc.
Ohara Corp.
Okamoto Optics Co., Ltd.
Omega Optical, Inc.
Ondax, Inc.
Onyx Optics Inc.
Opnext, Inc.
OpSys Project Consulting
OpTek Systems, Inc.
Optics Technology, Inc.
OptiGrate
Optimax Systems, Inc.
OptiSource, LLC
Optiwave Systems Inc.
Opto Diode Corp.
OptoElectronic Components (OEC)
Optometrics Corp.
Opto-Precision Pte Ltd.
OptoSigma Corp.
OptoTech Optikmaschinen GmbH
Pacific Coast Optics
Pacific Rim Optical, Inc.
Paul Pleiger Maschinenfabrik GmbH & Co. KG
PD-LD, Inc.
PFG Optics
Philips Technologie GmbH U-L-M Photonics
Phoenix B.V.
Phosctech Photonics Ltd.
Photonic Products Ltd.
Photonics Industry & Technology Development Association (PIDA)
Photop Technologies, Inc.
- PicoQuant GmbH
Plymouth Grating Laboratory
POG Precision Optics Gera
Point Source
Polaris Electronics Corp.
Precision Glass & Optics
Precision Optical
Precision Optics Corp.
Precision Photonics Corp.
Process Materials Inc.
PROMET International Inc.
Qioptiq Group
Quality Thin Films, Inc.
Quantum Coating, Inc.
Quebec Photonic Network
R. Mathews Optical Works, Inc.
Raicol Crystals Ltd.
Rainbow Research Optics, Inc.
Raylase AG
Redfern Integrated Optics, Inc.
Research Electro-Optics, Inc.
Reynard Corp.
Rising Electro-Optics Ltd.
Rochester Precision Optics LLC
Rocky Mountain Instrument Co.
Roithner Lasertechnik GmbH
Rolyn Optics Co.
RoMack, Inc.
RPC Photonics, Inc.
RSP Technology
S1 Optics GmbH
Saint-Gobain Crystals
Savimex
SCANLAB America, Inc.
Schneider Optics, Inc.
SCHOTT North America, Inc. - Advanced Optics
SCHOTT North America, Inc. - Fiber Optics
SEDI Fibres Optiques
Seikoh Giken USA Inc.
Seiwa Optical America Inc.
Servometer/PMG, LLC
SESO
Shanghai Optics
Sierra Precision Optics
Silian Technical Import & Export Co., Ltd. Chongqing
Silius Technologies
Sill Optics GmbH & Co., KG
Sinclair Manufacturing Co.
Sinoceramics (USA), LLC
Siskiyou Corp.
SMA Optical Technologies, Inc.
Space Optics Research Labs., LLC (SORL)
Special Optics, Inc.
Spectral Systems
Spectra-Mat, Inc.
Spectrogon US Inc.
Spectrolab, Inc.
Spectrum Scientific, Inc.
Spectrum Thin Films Corp.
SRICO, Inc.
Stemmerich, Inc.
StockerYale, Inc.
- Sumipro
Sumitomo Metal Mining Co. Ltd.
Sunex Inc.
SUSS MicroOptics SA
Sutter Instrument Co.
Swift Glass Co.
Swiss Jewel Co.
SwissOptic AG
Sydor Optics, Inc.
T&C Plastic Moulding Pte Ltd.
Taboada Research Instruments, Inc.
Techmetals, Inc.
Technobis Group
TecOptics
Tempotec Optics Co., Ltd.
Teraxion Inc.
Tessera Inc.
Texas Instruments DLP
The China and South Optical Crystals Co.
Tower Optical Corp.
Toyotec Co., Ltd.
TwinStar Optics
Unice E-O Services Inc.
Union Optic, Inc.
Unioriental Optics Co., Ltd.
Universal Photonics, Inc.
US CONEC Ltd.
Valley Design Corp.
VI Systems GmbH
Vincent Associates
Virtual Industries, Inc.
Vixar
VLOC
Wangi Industrial Co Pte Ltd.
Wavelength Technology Singapore Pte Ltd.
Western Photonics Technology
Williams Advanced Materials
WT&T Inc.
wzw-optics AG
Xio-Photonics
YLX Corp.
Z&Z Optoelectronics Tech. Co., Ltd.
Zeon Chemicals
Z-LASER Optoelektronik GmbH
Zygo Corporation

Optical Detectors

- Accina, Inc.
Advanced Laser Diode Systems A.L.S. GmbH
Advanced Photonix Inc.
Analog Modules, Inc.
Argus International, Ltd.
BaySpec, Inc.
Becker & Hickl GmbH
Boston Electronics Corp.
Cedova B.V.
Chunghwa Telecom Labs.
Crosslight Software, Inc.
Dayoptics, Inc.
DongWoo Optron Co., Ltd.
e2v

Electron Tubes
 Electro-Optical Systems, Inc.
 Electro-Optics Technology, Inc.
 EM4, Inc.
 EPIGAP Optoelektronik GmbH
 Epitaxial Technologies, LLC
 EpiWorks, Inc.
 Fairchild Imaging
 FEMTO Messtechnik GmbH
 Femtochrome Research, Inc.
 Fraunhofer Heinrich Hertz
 Gentec Electro-Optics Inc.
 GPD Optoelectronics Corp.
 Hamamatsu Corp.
 HEETRONIX, Inc.
 Hellma USA, Inc.
 Hinds Instruments, Inc.
 id Quantique SA
 Infratec Infrared LLC
 International Light Technologies
 International Radiation Detectors,
 Inc.
 Ion Beam Milling Inc.
 Kyosemi Opto America Corp.
 Labsphere, Inc.
 Laird Technologies
 Laser 2000 Benelux CV
 Laser Diode, Inc.
 Laser Point
 MeshTel - INTELITE
 Micro Photon Devices
 Mightex Systems
 MRC Optics, a PPGI company
 New England Photoconductor
 Corp.
 Ocean Optics, Inc.
 On-Trak Photonics, Inc.
 Ophir-Spiricon, Inc.
 Optics for Hire
 Opto Diode Corp.
 OptoElectronic Components
 (OEC)
 Orb Optronix, Inc.
 Paradigm Lasers, Inc.
 PHASICS SA
 Photek, Ltd.
 Photon Inc.
 Photop Technologies, Inc.
 PicoQuant GmbH
 Princeton Instruments
 QPhotonics, LLC
 Radiation Monitoring Devices, Inc.
 Resonon, Inc.
 Scientech, Inc.
 Sensors Unlimited, Inc., part of
 Goodrich Corporation
 Sens-Tech Ltd.
 sglux SolGel Technologies GmbH
 Sinclair Manufacturing Co.
 Siskiyou Corp.
 Spectrolab, Inc.
 Spectrum Detector Inc.
 Stanford Computer Optics, Inc.
 Sydor Instruments LLC
 Teledyne Judson Technologies
 Thermo Fisher Scientific

Thorlabs, Inc.
 Toshiba American Information
 Systems
 VI Systems GmbH
 VIGO Systems SA
 Wavelength Technology
 Singapore Pte Ltd.

Optical Fibers

AFL Telecommunications
 Apollo Instruments, Inc.
 AT-Fachverlag GmbH
 Automation Engineering Inc. (AEI)
 Beijing Glass Research Institute
 Brimrose Corporation of America
 Canadian Institute for Photonics
 Innovations
 Carolinas Photonics Consortium
 CeramOptec Industries, Inc.
 Chiral Photonics, Inc.
 Clemson University - COMSET
 Coastal Connections
 Collimated Holes, Inc.
 CorActive High-Tech, Inc.
 Crystal Fibre
 Draka Communications Optical
 Fiber
 EMCORE Corp.
 Fianium Inc.
 Fiber Optic Center, Inc.
 Fibercore Ltd.
 Fibercryst
 Fiberguide Industries, Inc.
 FiberLabs Inc.
 Fiberoptic Systems, Inc.
 Fiberoptics Technology Inc.
 FiberTech GmbH Special Optical
 Fiber Technologies
 Fibertech Optica
 Fraunhofer ILT
 Fraunhofer Institute for Applied
 Optics and Precision
 Engineering IOF
 Gooch & Housego (UK) Ltd.
 High Tech Photonics
 IMM Photonics GmbH
 Incom, Inc.
 Infrared Fiber Systems
 Infrared Focal Systems, Inc.
 INO
 IRphotonics
 iXFiber SAS
 j-fiber GmbH
 JT Ingram Sales & Marketing
 Kohoku Kogyo Co., Ltd.
 Labsphere, Inc.
 Laser 2000 GmbH
 Laser Components GmbH
 LASER COMPONENTS IG, Inc.
 LEISTER Technologies
 LEONI Fiber Optics GmbH
 Light Guide Optics Germany
 GmbH
 Lionix B.V.
 MeshTel - INTELITE
 METALLIFE, Inc.

Micro Laser Systems, Inc.
 Micron Optics, Inc.
 Mitsubishi Cable Industries, Ltd.
 Nanjing Sapphire Electro-Optics
 Co., Ltd.
 nLIGHT Corp.
 NP Photonics
 Nufern
 NuSil Technology
 OpTek Systems, Inc.
 Optiwave Systems Inc.
 Point Source
 Polymicro Technologies
 Quebec Photonic Network
 RoMack, Inc.
 SCHOTT North America, Inc. -
 Fiber Optics
 Scottish Development
 International
 SEDI Fibres Optiques
 Seikoh Giken USA Inc.
 SSCP USA
 The China and South Optical
 Crystals Co.
 Thorlabs, Inc.
 TransMIT GmbH
 Umicore Optical Materials USA
 Inc.
 Verrillon, Inc.
 V-Gen
 Vytran LLC
 Western Photonics Technology
 WT&T Inc.

Optical Materials and Substrates

4AD Enterprises, Inc.
 A Glass Technology Enterprise
 Corp.
 Access Optics LLC
 Accina, Inc.
 Accuratus Corp.
 Advanced Thin Films
 Andover Corp.
 Anteryon BV
 Archer OpTx, Inc.
 Argus International, Ltd.
 AT-Fachverlag GmbH
 ATP, Applied Thin-Film Products
 AZURE Photonics Co. Ltd.
 Barr Associates Inc.
 Beijing Delfa Optoelectronics Inc.
 Beijing Opto-Electronics
 Technology Co., Ltd. (BOET)
 Blue Ridge Optics LLC
 Boston Electronics Corp.
 Brush Ceramic Products
 Carolinas Photonics Consortium
 CASTECH Inc.
 China Opto-Electro Industries,
 Co., Ltd.
 Chroma Technology Corp
 CLASER Photonics Inc.
 Clemson University - COMSET
 CODIXX AG
 Coining, Inc.

Conex Systems Technology, Inc.
 Coresix Precision Glass, Inc.
 Cristal Laser SA
 Cryslaser Inc.
 Crystal GmbH
 Crystal Research, Inc.
 Crystal Systems, Inc.
 Crystal Technology, Inc.
 Crystran Ltd.
 Dayoptics, Inc.
 DELTA Light & Optics
 Diemat, Inc.
 Dominar, Inc.
 Dynasil Corp.
 EKSMa Optics
 Emerging Material Technologies,
 Inc.
 EMF Corp.
 Empire West Plastics
 EpiWorks, Inc.
 Evaporated Coatings, Inc.
 Excell Technology
 Exciton, Inc.
 Fairfield Crystal Technology, LLC
 Fibercryst
 Fraunhofer Institut für
 Silicatiforschung
 Fresnel Technologies Inc.
 Frontier Optics Inc.
 Fuzhou Alpha Optics Co., Ltd.
 Gamdan Optics
 Gavish, Inc.
 Glass Fab Inc.
 Gooch & Housego (UK) Ltd.
 Guojing Infrared Optical
 Technology Co., Ltd.
 HC Photonics Corp
 Heraeus Quartz America
 Hilger Crystals Ltd.
 HTA Photomask
 II-VI Infrared
 IMPEX HighTech GmbH
 Incom, Inc.
 Infinite Graphics Incorporated
 Infinite Optics Inc.
 Infrared Focal Systems, Inc.
 IRD Glass
 IRphotonics
 Isomet Corp.
 Isuzu Glass Inc.
 JML Optical Industries Inc.
 Labsphere, Inc.
 Laird Technologies
 Lambda Research Optics Inc.
 Laser Materials Corp.
 Laser Research Optics
 Lattice Materials LLC
 LEYSOP Ltd.
 Lionix B.V.
 Meller Optics, Inc.
 METALLIFE, Inc.
 Microcertec
 Milestone Technology
 Mitsui Chemicals America, Inc.
 Monocrystal, Inc.
 MOXTEK

Photonics West Product Index

MPA Crystal Corp.
Naked Optics Corp.
Nanjing Sapphire Electro-Optics Co., Ltd.
New England Photoconductor Corp.
Nikon Corp.
NOIR LaserShield
Novotech, Inc.
NuSil Technology
Ohara Corp.
Optometrics Corp.
Opto-Precision Pte Ltd.
Pacific Rim Optical, Inc.
Phosctech Photonics Ltd.
Plasmaterials, Inc.
Power Technology, Inc.
Precision Glass & Optics
Precision Photonics Corp.
Precitech, Inc.
Quality Thin Films, Inc.
Rainbow Research Optics, Inc.
Remtec, Inc.
Research Electro-Optics, Inc.
Rising Electro-Optics Ltd.
RSP Technology
Rubicon Technology, Inc.
SCHOTT North America, Inc. - Advanced Optics
Silian Technical Import & Export Co., Ltd. Chongqing
Sinoceramics (USA), LLC
Spectra-Mat, Inc.
Spectrogon US Inc.
Spectrum Scientific, Inc.
Spectrum Thin Films Corp.
SSCP USA
Stellar Industries Corp.
Stemmerich, Inc.
Sumitomo Metal Mining Co. Ltd.
Sunex Inc.
Swift Glass Co.
Swiss Jewel Co.
Techmetals, Inc.
TecOptics
The China and South Optical Crystals Co.
TwinStar Optics
Umicore Optical Materials USA Inc.
Umicore Thin Film Products
Union Optic, Inc.
Unioriental Optics Co., Ltd.
Vacuum Engineering & Materials Co., Inc.
Valley Design Corp.
Vescent Photonics
Virtual Industries, Inc.
Williams Advanced Materials
wzw-optics AG
Z&Z Optoelectronics Tech. Co., Ltd.
Zeon Chemicals
Zeromicron, Inc.

Optical Test and Measurement Equipment, Interferometer

3SAE Technologies, Inc.
4D Technology Corp.
Active Optics - Night N (opt) Ltd.
AFL Telecommunications
AMO WaveFront Sciences, LLC
Andor Technology Plc
APE - Angewandte Physik und Elektronik GmbH
Arden Photonics Ltd.
ASML Optics
AT-Fachverlag GmbH
AudioDev USA, Inc.
Averna
Biophotonic Solutions, Inc.
Bristol Instruments, Inc.
Calmar Optcom, Inc.
Davidson Optronics, Inc.
Dioptic GmbH
DongWoo Optron Co., Ltd.
Engineering Synthesis Design, Inc.
FEMTO Messtechnik GmbH
Femtochrome Research, Inc.
Fiber Optic Center, Inc.
FiberLabs Inc.
FIBERPRO USA
fineoptix GmbH
Flemming Tinker, LLC
Gentec Electro-Optics Inc.
Hinds Instruments, Inc.
ICA Corp.
ILX Lightwave Corp.
Imagine Optic
INNO-SPEC GmbH
InPhenix Inc.
International Light Technologies
JENOPTIK Laser, Optik, Systeme GmbH - Optics Business Unit
Kiyohara Optics USA
Kreischer Optics, Ltd.
Krell Technologies
Labsphere, Inc.
Laser 2000 GmbH
Laser Diode, Inc.
Laser Optics Berlin
Laser Scanning Solutions
Light Age, Inc.
Luna Technologies
m-u-t America Inc.
Micro Laser Systems, Inc.
Micro Photon Devices
Micron Optics, Inc.
Mightex Systems
Mildex, Inc.
Minus K Technology, Inc.
Nanonics Imaging Ltd.
National Instruments
New Source Technology, LLC
Novacam Technologies Inc.
Ohara Corp.
Okamoto Optics Co., Ltd.

Olis, Inc.
Ophir-Spiricon, Inc.
Optical Systems Corp. (OSC)
OPTICS 1, Inc.
Optikos Corp.
Optometrics Corp.
OptoTech Optikmaschinen GmbH
Optronic Laboratories, Inc.
Orb Optronix, Inc.
Orbits Lightwave, Inc.
OXXIUS
OZ Optics Ltd.
Pacific Coast Optics
Paradigm Lasers, Inc.
PhaseView
PHASICS SA
Photon Inc.
Photonic Cleaning Technologies
PI (Physik Instrumente) L.P. Piezo Nano Positioning
Piezosystem Jena, Inc.
Plymouth Grating Laboratory
Point Source
PolarOnyx, Inc.
Precision Optical
Primes GmbH
Princeton Instruments
PROMET International Inc.
QED Technologies, Inc.
Sacher Lasertechnik GmbH
SGS Slicing Solutions, Inc.
Space Optics Research Labs., LLC (SORL)
SphereOptics LLC
Swamp Optics, LLC
Taboada Research Instruments, Inc.
tec5USA
TELOPS Inc.
Thermo Fisher Scientific
Thorlabs, Inc.
TransMIT GmbH
Triad Technology Inc.
Trioptics GmbH
Unice E-O Services Inc.
Vermont Photonics, Inc.
Wells Research & Development
Western Photonics Technology
Yokogawa Corp. of America
Zygo Corporation

Optical/Laser Microlithography

Applied Image Inc.
ASML Optics
AZURE Photonics Co. Ltd.
Beijing Glass Research Institute
Beijing Opto-Electronics Technology Co., Ltd. (BOET)
Canadian Institute for Photonics Innovations
DELTA Light & Optics
DPSS Lasers Inc.
Dynamics Research Corp.
Energetiq Technology, Inc.
Excell Technology

Fraunhofer Institut für Silicatiforschung
Harold Johnson Optical Labs.
Heraeus Quartz America
HTA Photomask
IMT Masken und Teilungen AG
Ion Beam Milling Inc.
Light Age, Inc.
Lightspeed Technologies
LIMO Lissotschenko Mikrooptik GmbH
Lumera Laser GmbH
Max Levy Autograph, Inc.
MEMS Optical Inc.
Nanoscribe GmbH
Norland Products Inc.
Optical Research Associates
OXXIUS
Photonics Industries International, Inc.
POG Precision Optics Gera
Sacher Lasertechnik GmbH
SCHOTT North America, Inc. - Advanced Optics
Scottish Development International
Seiwa Optical America Inc.
Tessera Inc.
Toptica Photonics, Inc.
Translume, Inc.
V-Gen

Optics Manufacturing

4D Technology Corp.
A Glass Technology Enterprise Corp.
Access Optics LLC
Accina, Inc.
Accumold
Active Optics - Night N (opt) Ltd.
Acton Optics & Coatings, Div. of Princeton Instruments
Advanced Microoptic Systems GmbH
Advanced Thin Films
AFL Telecommunications
AIM Specialty Materials
Anchor Optics
Andover Corp.
Apollo Optical Systems, Inc.
APS Optics
Archer OptTx, Inc.
Argus International, Ltd.
Argyle International Inc.
ASML Optics
asphericon GmbH
ATP, Applied Thin-Film Products
Automation Engineering Inc. (AEI)
AZURE Photonics Co. Ltd.
Barr Associates Inc.
Beijing Delfa Optoelectronics Inc.
Berliner Glas US
BMV Optical Technologies Inc.
Breault Research Organization
CASTECH Inc.

- China Daheng Group Inc.
China Opto-Electro Industries, Co., Ltd.
Chroma Technology Corp
CLASER Photonics Inc.
Coastal Optical Systems, Inc.
CODIXX AG
Colorado Photonics Industry Association
Computer Optics Inc.
Conex Systems Technology, Inc.
Coresix Precision Glass, Inc.
Cristal Laser SA
Crystal GmbH
Crystal Systems, Inc.
Crystran Ltd.
Dayoptics, Inc.
Del Mar Photonics, Inc.
DELTA Light & Optics
Delta Optics Technologies Pte Ltd.
Diffractive Optics Ltd.
Docter Optics, Inc.
Dominar, Inc.
Dyna Technologies, Inc.
DynaVac
Edmund Optics
EKSMA Optics
Electro-Optical Industries, Inc.
EM4, Inc.
EMCORE Corp.
EMF Corp.
Engineered Surface Finishes, A Group of Cabot Microelectronics Corp.
Evatec NA
Fairfield Crystal Technology, LLC
FEMTOLASERS, Inc.
ficonTEC
Filtech Photonics Co., Ltd.
fineoptix GmbH
Flemming Tinker, LLC
FLIR Government Systems
Foctek Photonics, Inc.
Foreal Spectrum, Inc.
Fresnel Optics GmbH
Fresnel Technologies Inc.
Fuzhou Alpha Optics Co., Ltd.
GAGGIONE
Gavish, Inc.
GD Optical Competence GmbH
General Atomics
Glass Fab Inc.
Gold Dragon Optics Co., Ltd.
Gooch & Housego (UK) Ltd.
Grintech GmbH
G-S PLASTIC OPTICS
Gurley Precision Instruments, Inc.
Hangzhou Photographic Machinery Research Institute
Harold Johnson Optical Labs.
HC Photonics Corp
Hellma USA, Inc.
Heraeus Quartz America
HOLOEYE Photonics AG
HORIBA Jobin Yvon Inc.
- HTA Photomask
II-VI Infrared
IMPEX HighTech GmbH
Infinite Optics Inc.
Infrared Focal Systems, Inc.
INGENERIC GmbH
Inlight Precision Optics Co., Ltd.
IRD Glass
IRphotonics
Isuzu Glass Inc.
Janos Technology, Inc.
JENOPTIK Laser, Optik, Systeme GmbH - Microoptics Business Unit
JENOPTIK Laser, Optik, Systeme GmbH - Optics Business Unit
JENOPTIK Polymer Systems, Inc.
JML Optical Industries Inc.
Kaleido Technology ApS
Keting Optical Technology Inc.
Kiyohara Optics USA
Kreischer Optics, Ltd.
Krell Technologies
Kugler of America LTD
L-3 Communications, Tinsley Laboratories, Inc.
Lambda Research Optics Inc.
Laser Components GmbH
LASER COMPONENTS IG, Inc.
Laser Diode, Inc.
Laser Optics, a PPGI company
Laser Research Optics
Lattice Electro Optics, Inc.
Lattice Materials LLC
Leica Microsystems CMS GmbH
LEYSOP Ltd.
Liebmann Optical Co.
LightTrans GmbH
Lincoln Laser Co.
LINOS Photonics
Lumera Laser GmbH
Max Levy Autograph, Inc.
Meller Optics, Inc.
MEMS Optical Inc.
MLOptic Corp.
Molded Plastic Optics, LLC
Moore NanoTechnology Systems LLC
MPA Crystal Corp.
MRC Optics, a PPGI company
Naked Optics Corp.
Nalux Co., Ltd.
Nanjing Sapphire Electro-Optics Co., Ltd.
Navitar
Norland Products Inc.
North American Coating Laboratories
Northrop Grumman Synoptics
Novotech, Inc.
Ocean Optics, Inc.
Okamoto Optics Co., Ltd.
Omega Optical, Inc.
Onyx Optics Inc.
OpTek Systems, Inc.
Optics Technology, Inc.
- OptiGrate
Optimax Systems, Inc.
OptiPro Systems
OptiSource, LLC
Optometrics Corp.
Opto-Precision Pte Ltd.
OptoSigma Corp.
OptoTech Optikmaschinen GmbH
Pacific Coast Optics
Pacific Rim Optical, Inc.
Paul Pleiger Maschinenfabrik GmbH & Co. KG
PFG Optics
Phosctech Photonics Ltd.
Photop Technologies, Inc.
POG Precision Optics Gera
Polaris Electronics Corp.
Precision Glass & Optics
Precision Optical
Precision Optics Corp.
Precision Photonics Corp.
Precitech, Inc.
Process Materials Inc.
PROMET International Inc.
QED Technologies, Inc.
Qioptiq Group
Quality Thin Films, Inc.
Quebec Photonic Network
R. Mathews Optical Works, Inc.
Rainbow Research Optics, Inc.
Research Electro-Optics, Inc.
Reynard Corp.
Rochester Precision Optics LLC
Rocky Mountain Instrument Co.
RoMack, Inc.
RPC Photonics, Inc.
Rubicon Technology, Inc.
Schneider Optics, Inc.
SCHOTT North America, Inc. - Advanced Optics
Seiwa Optical America Inc.
Semrock, Inc.
Servometer/PMG, LLC
SESO
Shanghai Optics
Silian Technical Import & Export Co., Ltd. Chongqing
Sillios Technologies
Sill Optics GmbH & Co., KG
Sinoceramics (USA), LLC
Space Optics Research Labs., LLC (SORL)
Special Optics, Inc.
Spectral Systems
Spectrogon US Inc.
Spectrum Scientific, Inc.
Spectrum Thin Films Corp.
Stemmerich, Inc.
Strasbaugh
Sunex Inc.
Swift Glass Co.
Swiss Jewel Co.
SwissOptic AG
Sydor Optics, Inc.
Syntec Optics
Techmetals, Inc.
- Technobis Group
TecOptics
Tempo Clean Room Foam
Teraxion Inc.
Tessera Inc.
The China and South Optical Crystals Co.
Toyotec Co., Ltd.
Trioptics GmbH
TwinStar Optics
Umicore Optical Materials USA Inc.
Union Optic, Inc.
Unioriental Optics Co., Ltd.
Universal Photonics, Inc.
Valley Design Corp.
Virtual Industries, Inc.
Vistec Electron Beam Lithography Group
VLOC
Vytran LLC
Wangi Industrial Co Pte Ltd.
Western Photonics Technology
wzw-optics AG
Z&Z Optoelectronics Tech. Co., Ltd.
Zygo Corporation
- Photonics Equipment Manufacturer**
3SAE Technologies, Inc.
Abet Technologies, Inc.
Advanced Photonix Inc.
Aerotech, Inc.
Andover Corp.
Applied Image Inc.
Applied Photon Technology, Inc.
ARGES GmbH
attocube systems AG
Avo Photonics, Inc.
B&W Tek, Inc.
Big Sky Laser Technologies - see Quantel
Brimrose Corporation of America
BWT Beijing Ltd.
Calmar Optcom, Inc.
China Daheng Group Inc.
Colorado Photonics Industry Association
Computer Optics Inc.
CRI, Inc.
Davidson Optronics, Inc.
Daylight Solutions
DCM Tech, Inc.
Diamond Wire Technology
Doric Lenses Inc.
DPSS Lasers Inc.
DynaVac
Dyntest Technologies GmbH
EKSPLA UAB
Electron Tubes
Electro-Optical Industries, Inc.
Electro-Optical Products Corp.
Electro-Optical Systems, Inc.
Electrophysics Corp.
EMCORE Corp.

Photonics West Product Index

Engineering Synthesis Design, Inc.
Evatec NA
Fairchild Imaging
Fiberguide Industries, Inc.
ficonTEC
Finetech
GEL-PAK
General Atomics
Gurley Precision Instruments, Inc.
Hamamatsu Corp.
HEETRONIX, Inc.
Huanic Corp.
Innovative Photonic Solutions
Intense Ltd.
International Light Technologies
Intevac Photonics, Inc.
Intlvac
Isomet Corp.
JDSU
JENOPTIK Laser, Optik, Systeme GmbH - Lasers Business Unit
JENOPTIK Laser, Optik, Systeme GmbH - Optics Business Unit
Kaiser Systems, Inc.
Kimmon Electric US, L.P.
Krell Technologies
Kryotherm Thermoelctrics
Kugler of America LTD
Laserline Inc.
LEONI Fiber Optics GmbH
Lightel Technologies
M Squared Lasers Ltd.
m-u-t America Inc.
Marlow Industries, Inc.
Meyer Burger Technology Corp.
MICOS USA, LLC
MPB Communications Inc.
Multiwave Photonics
Nanonics Imaging Ltd.
Nanoscribe GmbH
NOIR LaserShield
Northrop Grumman Synoptics
Ocean Optics, Inc.
OpSys Project Consulting
Orbits Lightwave, Inc.
P&P Optica
Photek, Ltd.
Power Technology, Inc.
Powerlase
Quantel
Raicol Crystals Ltd.
Rocky Mountain Instrument Co.
Sacher Lasertechnik GmbH
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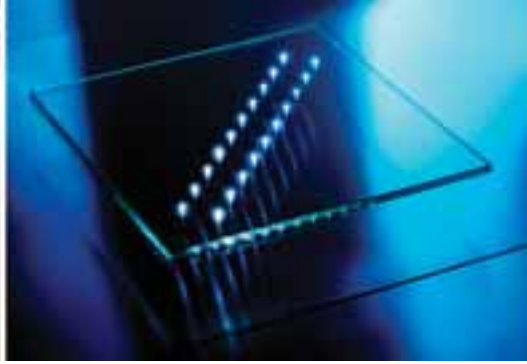
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Left/Middle Cover Photo Courtesy of SCHOTT. (Left photo: Fiber optical light guides. Drawing makes fiber optical light guides wafer-thin; Right photo: LED in flat glass. Light Points are LED's in a PVB flat glass foil laminate can be used in interiors, as glass walkways, as construction components for doors and many other products. Right Cover Photo Courtesy of Stephen Ausmus. Renewable-energy team members prepare experimental wind turbine blades for atmospheric testing. Team members pictured are ARS agricultural engineers Byron Neal (left foreground) and Nolan Clark (right foreground), and, from Sandia National Laboratories, electrical engineer Mark Rumsey and technician Donny Cagle (background).

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