

# 18th International Symposium on Plasma Chemistry Final Program

August 26 - 31, 2007

Kyoto University, Japan

<http://plasma.kuee.kyoto-u.ac.jp/ispc18/>



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## General Information

### Welcome

The International and the Local Organizing Committees welcome you to Kyoto for the 18th International Symposium on Plasma Chemistry (ISPC-18). We wish you a pleasant week in this beautiful historical city of Japan and an exciting and fruitful participation to the Symposium.

### Symposium Venues

All sessions are held at Yoshida Campus of Kyoto University in the city except Wednesday's sessions which are held at Katsura Campus in the suburbs. For the transportation to Katsura Campus, please refer to the description below.

August 26 (Sun), 27 (Mon), 28 (Tue)	Yoshida Campus (Yoshida-Honmachi, Sakyo-ku, Kyoto)
29 (Wed)	Katsura Campus (Kyoto-Daigaku-Katsura, Nishikyo-ku, Kyoto)
30 (Thu), 31 (Fri)	Yoshida Campus

### Registration and Information Desks

The locations and office hours of the registration and information desks are as follows.

August 26(Sun)	13:00–20:00	at Clock Tower 2F, Yoshida Campus
27(Mon), 28(Tue)	9:00–19:00	as above
29(Wed)	9:00–13:00	at Rohm Plaza 3F, Katsura Campus
30(Thu)	9:00–19:00	at Clock Tower 2F, Yoshida Campus
31(Fri)	9:00–18:00	as above

At the registration desk, you will receive a name plate with your name and affiliation. This is your personal *passport* to all official activities and events. The name plate indicates that you are a registered participant or accompanying person. Please wear it throughout the symposium and social events.

### IPCS General Assembly (Friday, 31 August)

All registered participants at the biennial ISPC are automatically members of the International Plasma Chemistry Society (IPCS) for the two years following the participated Symposium. Membership fee is included in the registration fee of the ISPC. IPCS General Assembly is going to be held at 13:00 on Friday, 31 August, in the **Room A** at the Clock Tower. All members are requested to attend the General Assembly for the purpose of approvals of the election of Board of Directors, operating principles and future plans of the ISPC, etc.

### Vote for IPCS Board of Directors (Deadline: 12:00, Thursday, 30 August)

You, IPCS members, have the right to elect new members of the IPCS Board of Directors according to the bylaws of IPCS. Please do not forget to vote for the board of directors with the official ballot, which is included in your registration items as a color sheet. A ballot box is placed at the registration desk from 9:00 on Monday, 27 August, to 12:00 on Thursday, 30 August. Delayed ballots are invalid.

### Internet

Wireless LAN environment is available at the Clock Tower area in Yoshida Campus, and at Rohm Plaza in Katsura Campus. If you want to use wireless LAN, please visit the registration desk and fill out a registration form with your personal information including passport number for security reasons to get your authentication ID. Some internet-capable PCs are available in the **Room M1** at the Clock Tower in Yoshida Campus.

## Presentations

### Plenary Lectures

Plenary lectures are scheduled at the beginning of the morning sessions except Wednesday, 29 August. In addition to the main lecture hall (**Room A**) at the Clock Tower, another conference room (**Room B**) is connected by internet AV systems, where you can audit the lecture and make Q/As.

### Oral Session Speakers

Each speaker at oral sessions is asked to deposit an electronic version of your slides at the presenter's desk of which location is shown below. Please provide us with your presentation file at least a half-day before your actual presentation schedule for the smooth operation of the oral sessions.

- **Slide deposition room: Room M1** at Clock Tower 2F. Slide deposition room is open from 9:00 to 19:00 every day except Wednesday, 29 August (closed) and Friday, 31 August (until 12:00). There is an extra LCD projector in the room for your own test prior to the deposition if necessary.
- **Deadline for the deposition: A half-day prior to the presentation.** If your presentation is scheduled in the morning session, please deposit your file in the afternoon of the day before or earlier. If it is in the afternoon session, please do so in the morning of the same day.

*\*Note that on Wednesday, 29 August, there is **no place for the deposition at Katsura campus**. Therefore, speakers in the morning sessions of Thursday, 30 August, are asked to deposit electronic files in the afternoon of Tuesday, 28 August or earlier.*

- **Lengths of oral presentations:**

Plenary Lectures	35 min + 5 min for discussion
Invited Talks	25 min + 5 min for discussion
Contributed Talks	15 min + 5 min for discussion

## Poster Session Presenters

Poster sessions are held at the International Conference Hall (**Poster Room**) on the 2nd floor of the Clock Tower at 14:10-15:50 on 27 (Mon), 28 (Tue), and 30 (Thu) August.

- **Poster board size: 900 mm width × 2,100 mm height.** Poster pins are available at each poster board and additionally at the registration desk.
- **Times to hang up and take off posters:** A poster board with each assigned poster number is available during the full day of each poster session. It is recommended for each presenter to hang up posters as early as possible before the start of the session and take off before the end of all sessions of the day.
- **Length of the poster session:** 100 min. (You may visit the poster room at any time during the office hour.)

## Best Paper Award and Plasma Chemistry Award

The International Organizing Committee will choose excellent contributions of young scientists, on the basis of innovation and quality of presentation. The Best Paper Awards of ISPC-18 will be presented to the winners at the Closing Ceremony of the Symposium.

The Plasma Chemistry Award will be presented to an outstanding scientist in recognition of lifetime achievements in Plasma Chemistry and Processing. The winner is selected by the IPCS Board of Directors, and the Award will be presented at the Social Dinner.

## Exhibitions

Exhibitions of scientific equipments and books are held during the symposium in the **Poster Room**.

- **Exhibitors:** ISI Inc., SAMCO Inc., Surfx Technologies LLC, Toray Engineering Co., Ltd. and Wiley Japan.

## Industrial Workshop on Plasma Chemistry (Friday, 31 August, Afternoon)

Industrial Workshop is attached to the main body of the Symposium in the afternoon of the last day: Friday, 31 August. All registered participants of the Symposium are welcome to join the Workshop for fee.

## Social Events

### Welcome Reception (Sunday, 26 August)

The Welcome Reception will take place in the University Restaurant *Renais*. The Reception is scheduled to open from 18:00 to 20:00 on Sunday, 26 August. All participants of the Symposium and accompanying persons are welcome to the reception. Light meals and drinks are served for free.

### Lecture on Kyoto and Japanese Culture (Wednesday, 29 August, Morning)

Professors Bonnie Jennifer Shikiko Kawakami and Junko Kawai present lectures “*Kyoto—Past and Present (An Introduction to Japan’s Ancient Capital)*” during the morning session in Katsura Campus on Wednesday, 29 August. The lectures start from 9:30 at the **Room L** of the administration bldg. in B-Cluster of Katsura Campus (See pages 10 and

11). Accompanying persons are invited to this program for free. Please join us for learning more about the city, its people and its cultural heritage. The first half of the talk will explore the many faces of Kyoto and Japanese culture — from food and entertainment to literature and the arts. The second half will include **Hands-On** activities such as **Origami** and Japanese calligraphy. **Japanese Tea Ceremony** is planned after the Hands-On activities. Symposium participants are also welcome to join these programs.

### Excursions (Wednesday, 29 August, Afternoon)

The ISPC-18 Local Organizing Committee has organized three courses of excursions in Kyoto in the afternoon of Wednesday, 29 August. Buses is going to pick up attendees at the Rohm Plaza in Katsura Campus at 13:10 after the morning session, and will return to the major hotels after the excursions. Box lunches are served on the buses. On-site registration for the excursions may be possible depending on the capacity of each course at a cost of JPY 4,000 per person. Please ask its availability at the registration desk by 17:00 on Tuesday, 28 August.

*\*For persons who are not attending the excursions, buses returning directly to major hotels in downtown are also available (See below and also page 8).*

### Symposium Social Dinner (Thursday, 30 August)

The symposium dinner will be held at 19:00 in the evening of Thursday, 30 August, at the Banquet Room **MIZUHO** on the 4th floor in The Westin Miyako Hotel. Shuttle buses to the hotel depart at 18:20–18:40 successively from the spot shown on the map below.

## Transportations

- **From Major Hotels to Yoshida Campus**

For the reference of your daily attendance to the Symposium, except Wednesday, see the map on page 5.

A one-day pass (Kyoto Convention Pass) valid for subway and bus lines of Kyoto City is available at the information desk. The price of a pass is JPY 700, which is cheaper than the cost of a round trip connecting city subway and bus.

- **From Major Hotels to Katsura Campus**

In the morning of Wednesday, 29 August, shuttle buses are available from the major hotels for the Katsura Campus. Meeting places for the shuttle buses and the departure time are shown on the map on page 8.

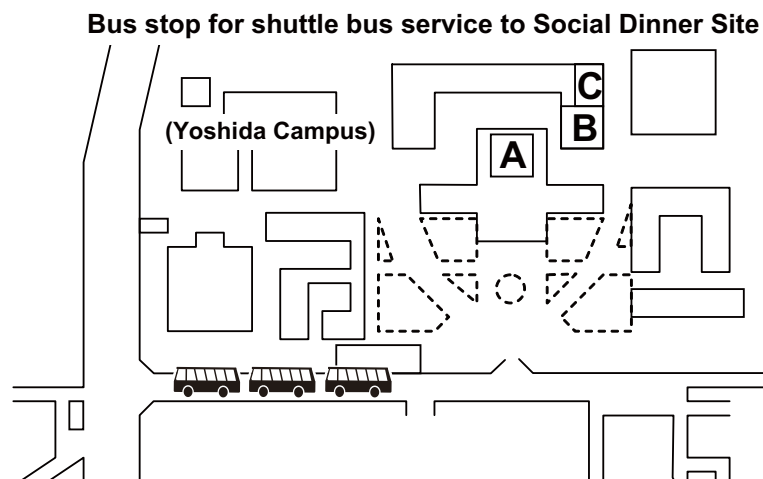
*\*Accompanying persons who plan to join the excursions in the afternoon are recommended to take the buses together and join the cultural lectures in the morning.*

- **From Katsura Campus to Major Hotels**

Shuttle buses for returning directly to the major hotels from Katsura Campus are available only at 13:20–13:40 on Wednesday, 29 August, which depart from the Rohm Plaza and stops at the spots on the map of page 8.

- **From Yoshida Campus to the Social Dinner Site (Westin Miyako Hotel)**

Shuttle buses are arranged for the transportation to the Social Dinner Site. Please take the buses departing successively from 18:20 to 18:40 from the spot shown on the map below.





## Yoshida Campus: Route Map

except Aug. 29 (Wed)

Hotels in the area near Kyoto Station: ①, ②, ③ and ④

i) **Kyoto Station** → City Subway (North bound) (10 min) → **Imadegawa**

**Imadegawa** → City bus #201 (East bound) (15 min) → **Kyodai Seimon-mae**

or City bus #203 or #102 (East bound) (15 min) → **Hyakuman-ben**

ii) **Kyoto Station** Bus Terminal → City bus #206 (East bound) (40 min) → **Kyodai Seimon-mae**

Hotels around Shijo-Karasuma: ⑤ and ⑥

iii) **Shijyo-Karasuma** → City Bus #201 (East bound) (30 min) → **Kyodai Seimon-mae**

iv) Take City Subway from **Shijo-Karasuma** and follow the Route i)

Hotels around Karasuma-Oike: ⑦ and ⑧

v) **Karasuma-Oike** → City Subway (North bound) (5 min) → **Imadegawa**

Then, follow the Route i)

Hotels around City Hall or along Kawaramachi-dori Av.: ⑨ and ⑩

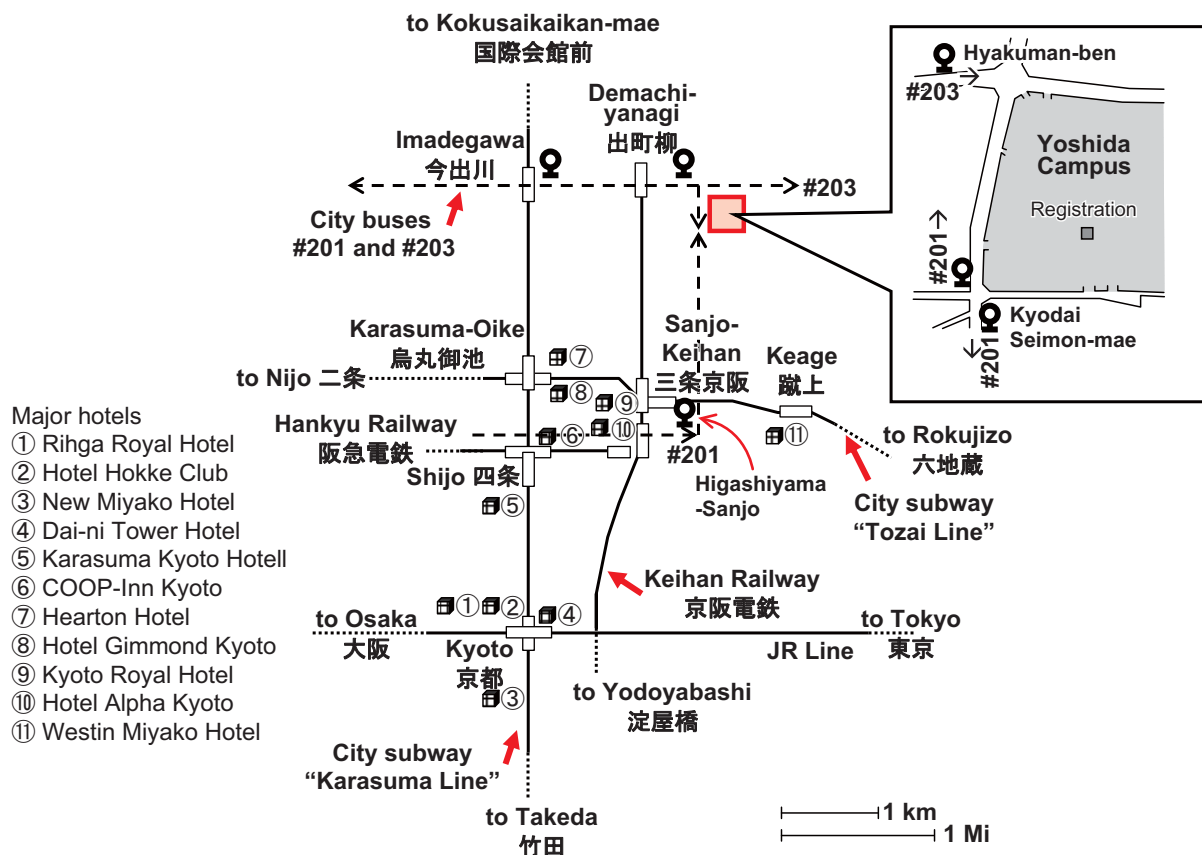
vi) Take City bus #3 or #17 from a bus stop nearby (North bound) (20 min) → **Hyakuman-ben**

vii) **Keihan-Sanjo** or **Keihan-Shijo** → Keihan-line (5~7 min) → **Demachi-yanagi** → walk (15 min)

Hotels along Subway Tozai-line ⑪

viii) Walk to **Higashiyama-Sanjo** (7 min) and take City bus #201 or #206 (North bound) (10 min)

→ **Kyodai Seimon-mae**



\*See page 4 for one-day pass (Kyoto Convention Pass).

**Yoshida Campus: Symposium Venue**

**except Aug. 29 (Wed)**



Clock Tower Centennial Hall		
2F	<b>Registration</b>	Registration and Information
	<b>Poster Room</b>	Posters and Exhibitions
	<b>Room M1</b>	Slide-Deposition / Wired-LAN
	<b>Room M2</b>	Multi-Purpose
	<b>Room M3</b>	Local Organizing Committee
	<b>Room M4</b>	Multi-purpose
Wireless LAN Area		
1F	<b>Room A</b>	Plenary and Oral
B1F	<b>COOP Shop</b>	Foods, stationeries, medicines, etc.
	<b>ATM</b>	

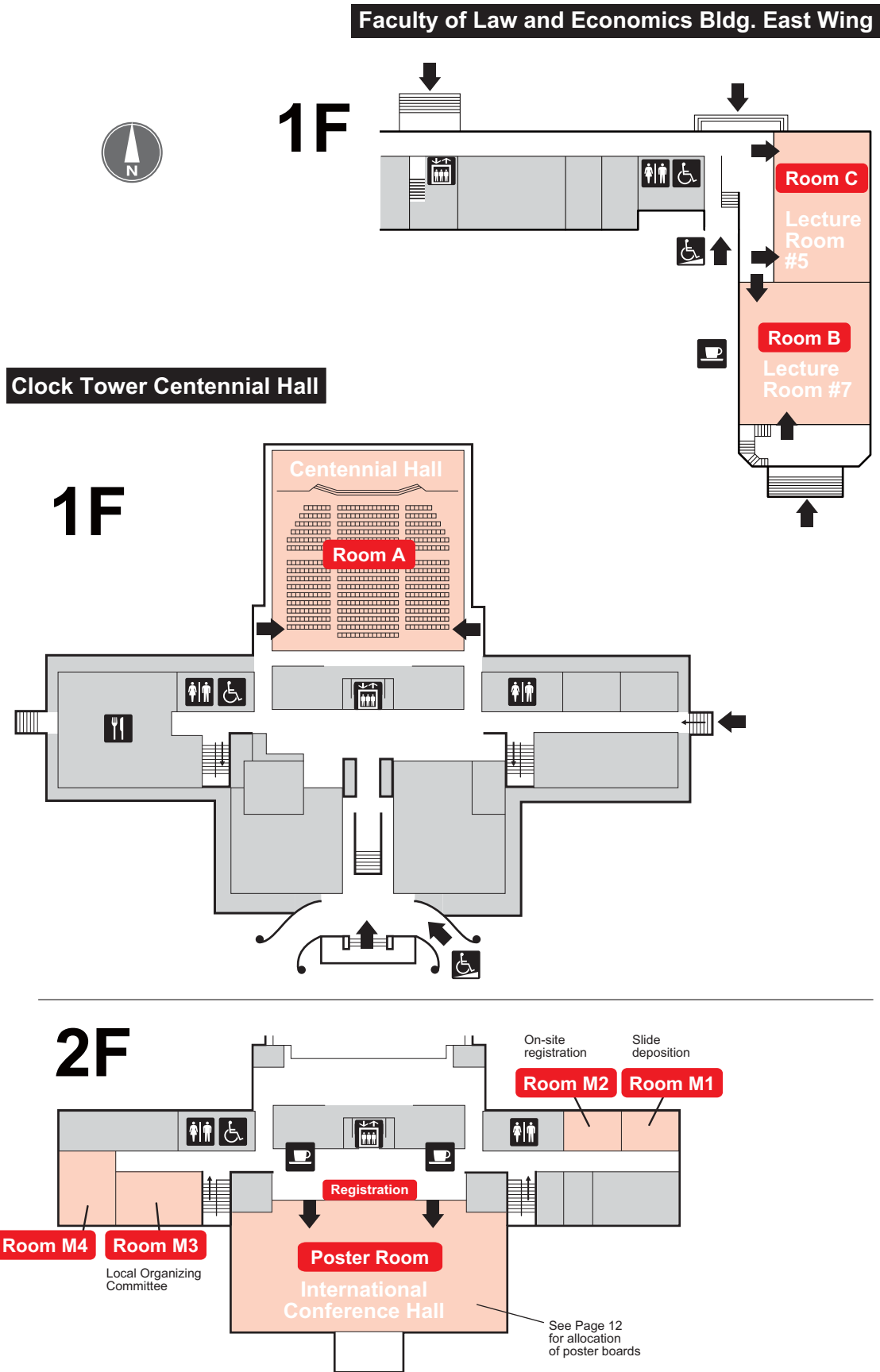
Faculty of Law and Economics Bldg. East Wing		
1F	<b>Room B</b>	Oral, Plenary (Remote AV)
	<b>Room C</b>	Oral

Kyoto Univ. COOP West Bldg 2F Restaurant <i>Renais</i>		
2F	<b>Welcome Party</b>	Only on Aug. 26(Sun)
1F	<b>COOP Shop</b>	Books, CDs, PCs



# Yoshida Campus: Session Rooms

except Aug. 29 (Wed)

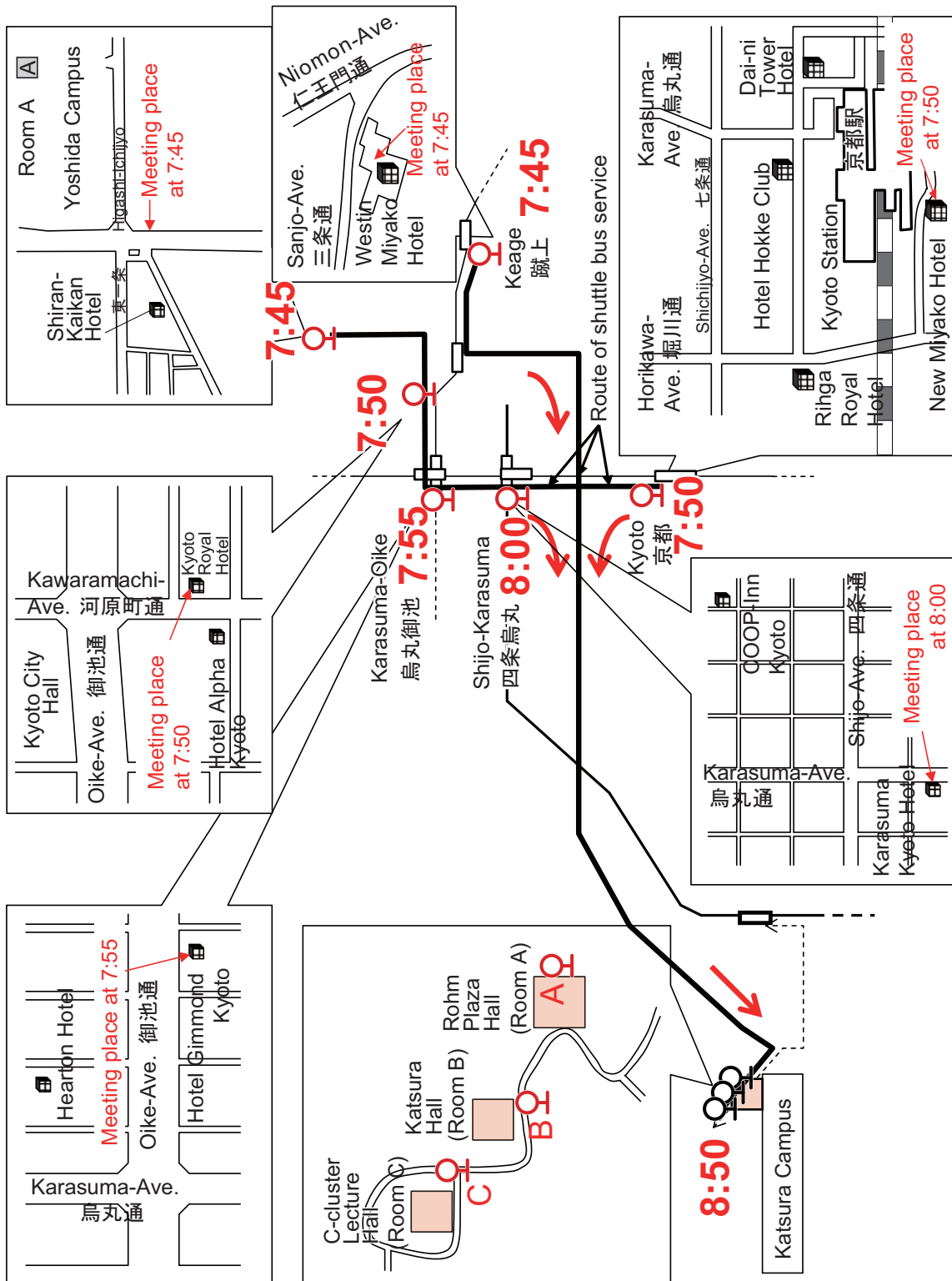


\*Conference rooms will open at 8:50 in the morning.

# Katsura Campus: Shuttle Bus

Aug. 29 (Wed)

- Bus stops and departure/arrival times



- In the afternoon, all buses for excursions and downtown hotels are departing from Rohm Plaza.
- Participants attending sessions in **Room C** will be transported from stop **C** to Rohm Plaza right after the sessions.

# Katsura Campus: Route Map

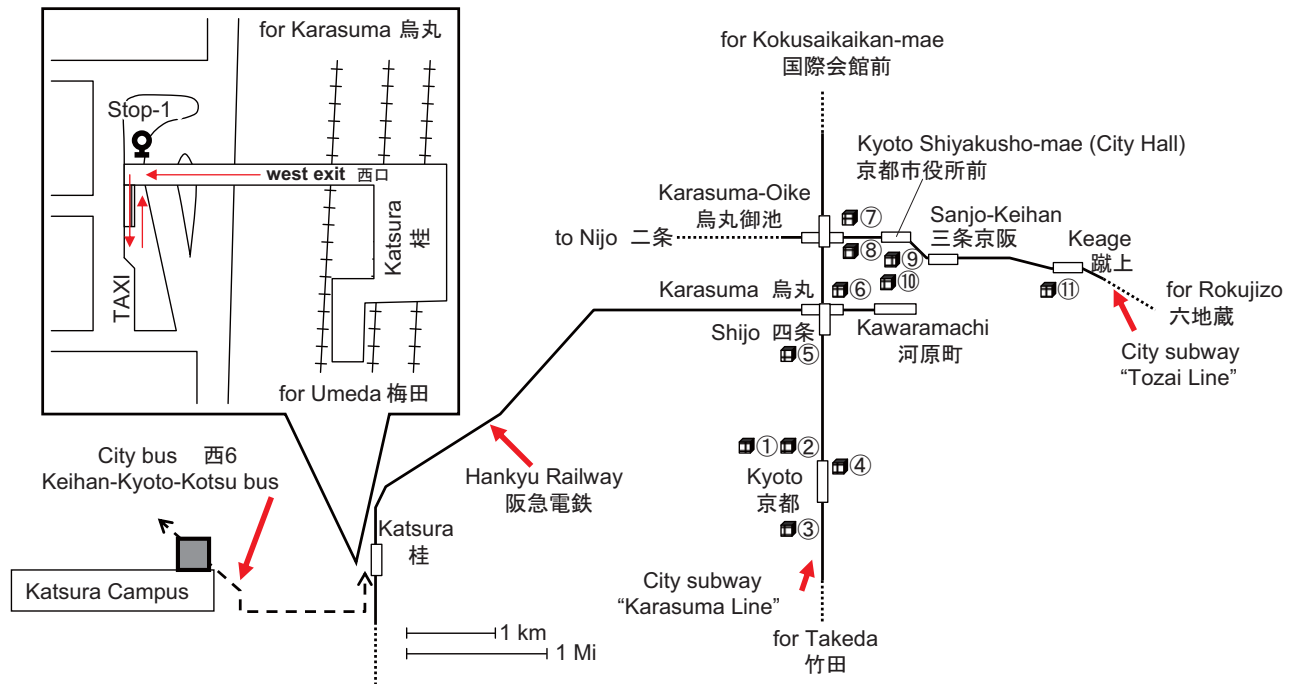
Aug. 29 (Wed)

- Reference route for persons coming to the Katsura Campus by themselves from hotels in downtown.
  - Take Hankyu-Railway trains for **Umeda** at Shijo-Karasuma (**Karasuma** station) or Shijo-Kawaramachi (**Kawaramachi** station).
  - Get off at **Katsura** station and go to the bus terminal at west side (**Nishi-guchi**).
  - Take City bus **#West 6 (西 6)** or Keihan-Kyoto-Kotsu bus for **Katsurazaka-chuo (桂坂中央)** at the bus stop-1 shown below.

City bus	<b>West #6 (西 6)</b>	8:04, 8:27, 8:50
Keihan-Kyoto-Kotsu bus	for <b>Katsurazaka-chuo (桂坂中央)</b>	8:06, 8:22, 8:36

- Get off at **Kyodai Katsura-Campus-mae** if you are attending sessions at **Room A, Room B** or Cultural Lecture Course (15 min).
- Get off at **Katsura Goryo-zaka** if you are attending sessions at **Room C** (17 min).

\* If you take a taxi from the bus terminal to Katsura Campus, it will take about 10 min and cost approx. JPY 1,000.

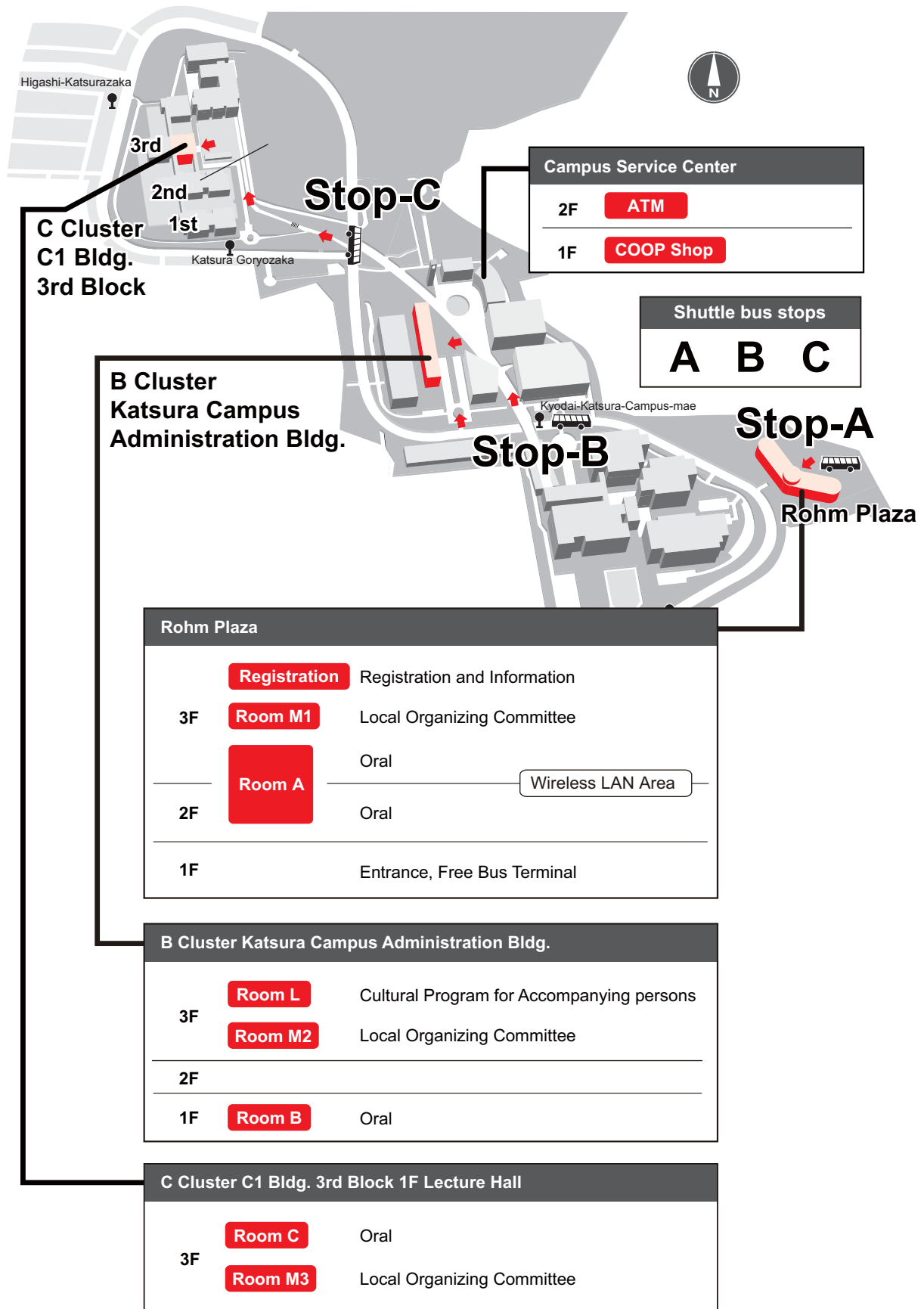


Routes from major hotels to Hankyu-line

① Rihga Royal Hotel ② Hotel Hokke Club ③ New Miyako Hotel ④ Dai-ni Tower Hotel	<b>Kyoto Station</b>	→ City subway → <b>Shijo-Karasuma</b> (Karasuma line)
⑤ Karasuma Kyoto Hotell ⑥ COOP-Inn Kyoto	Hankyu Railway <b>Karasuma</b> Station (walking distance)	
⑦ Hearton Hotel ⑧ Hotel Gimmond Kyoto	<b>Karasuma-Oike</b>	→ City subway → <b>Shijo-Karasuma</b> (Karasuma line)
⑨ Kyoto Royal Hotel ⑩ Hotel Alpha Kyoto	<b>Kyoto Shiyakusho-mae (City Hall)</b>	→ City subway → <b>Karasuma-Oike</b> → City subway → <b>Shijo-Karasuma</b> (Tozai line) (Karasuma line)
⑪ Westin Miyako Hotel	<b>Keage</b>	→ City subway → <b>Karasuma-Oike</b> → City subway → <b>Shijo-Karasuma</b> (Tozai line) (Karasuma line)

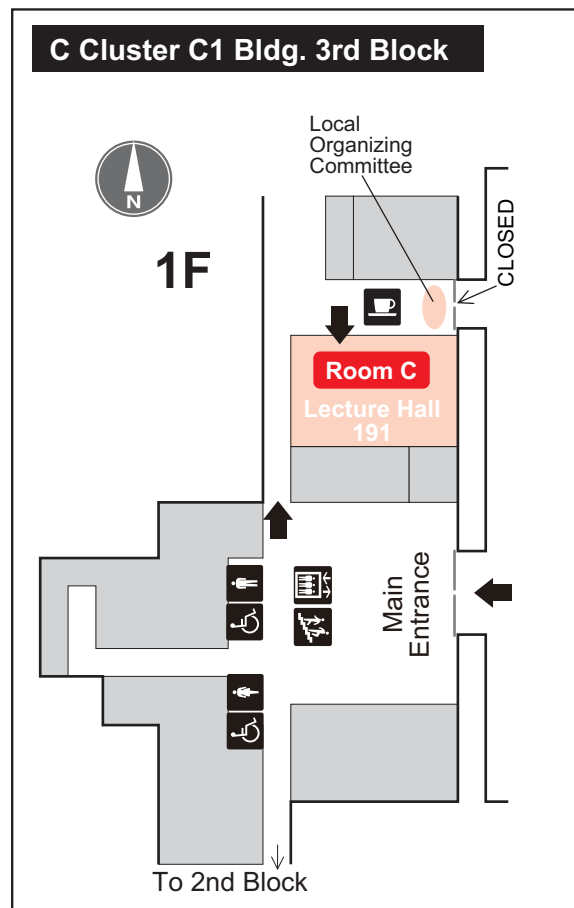
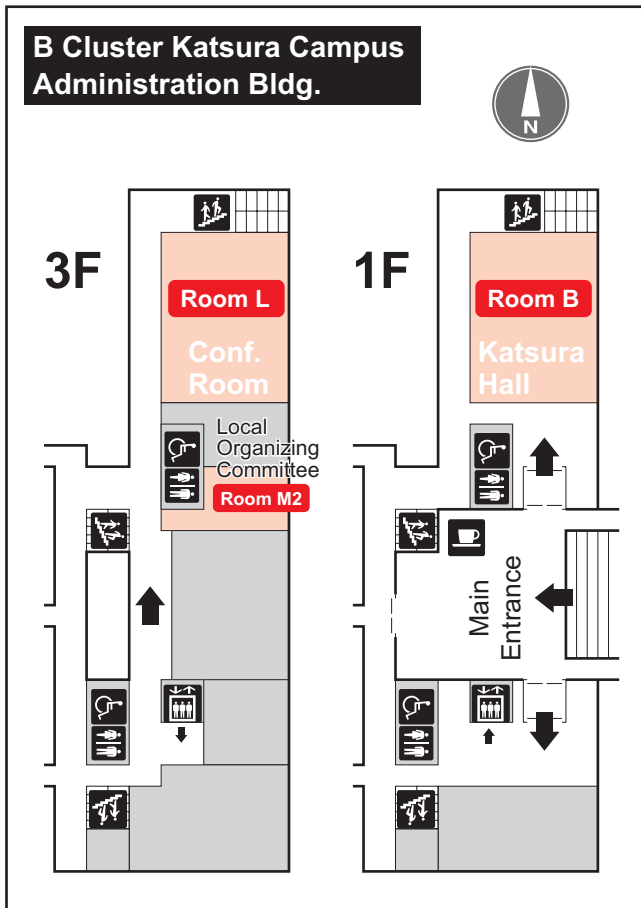
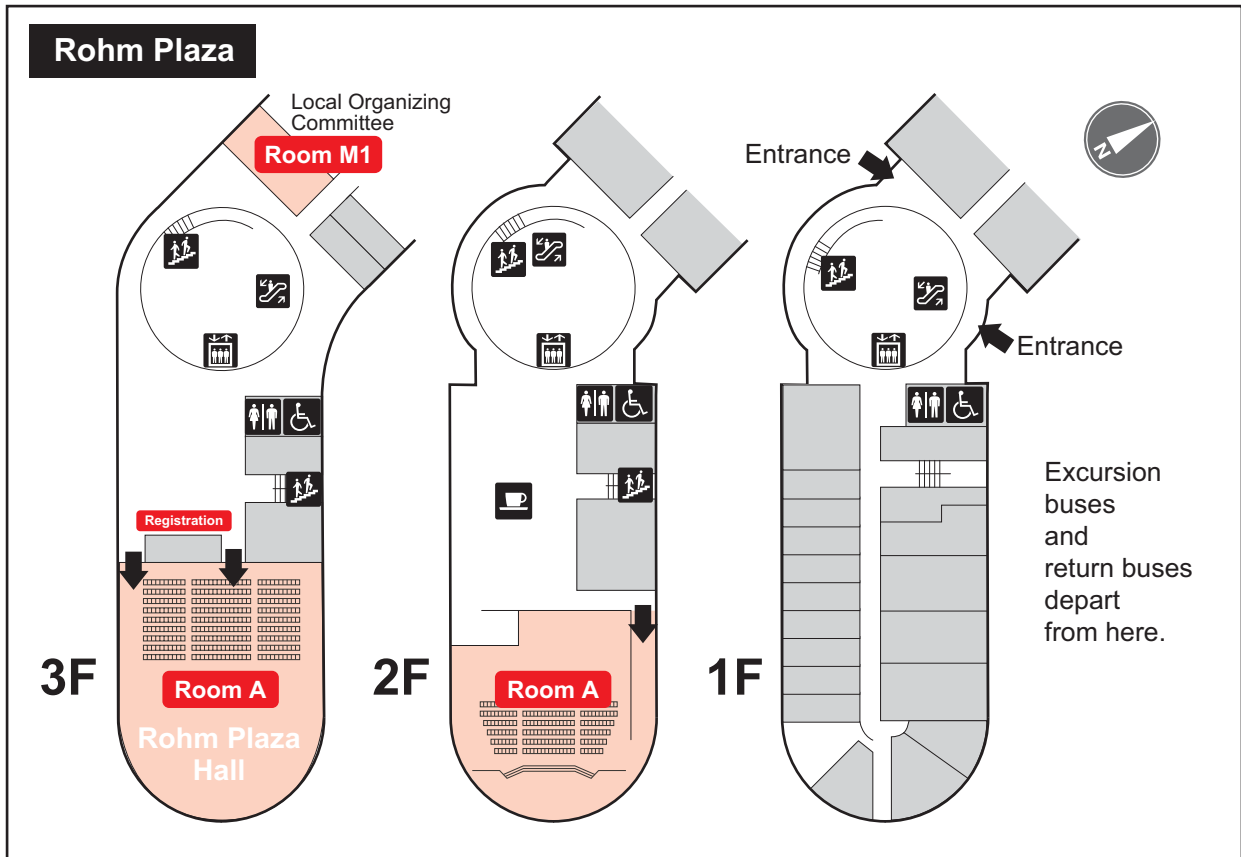
**Katsura Campus: Symposium Venue**

**Aug. 29 (Wed)**



# Katsura Campus: Session Rooms

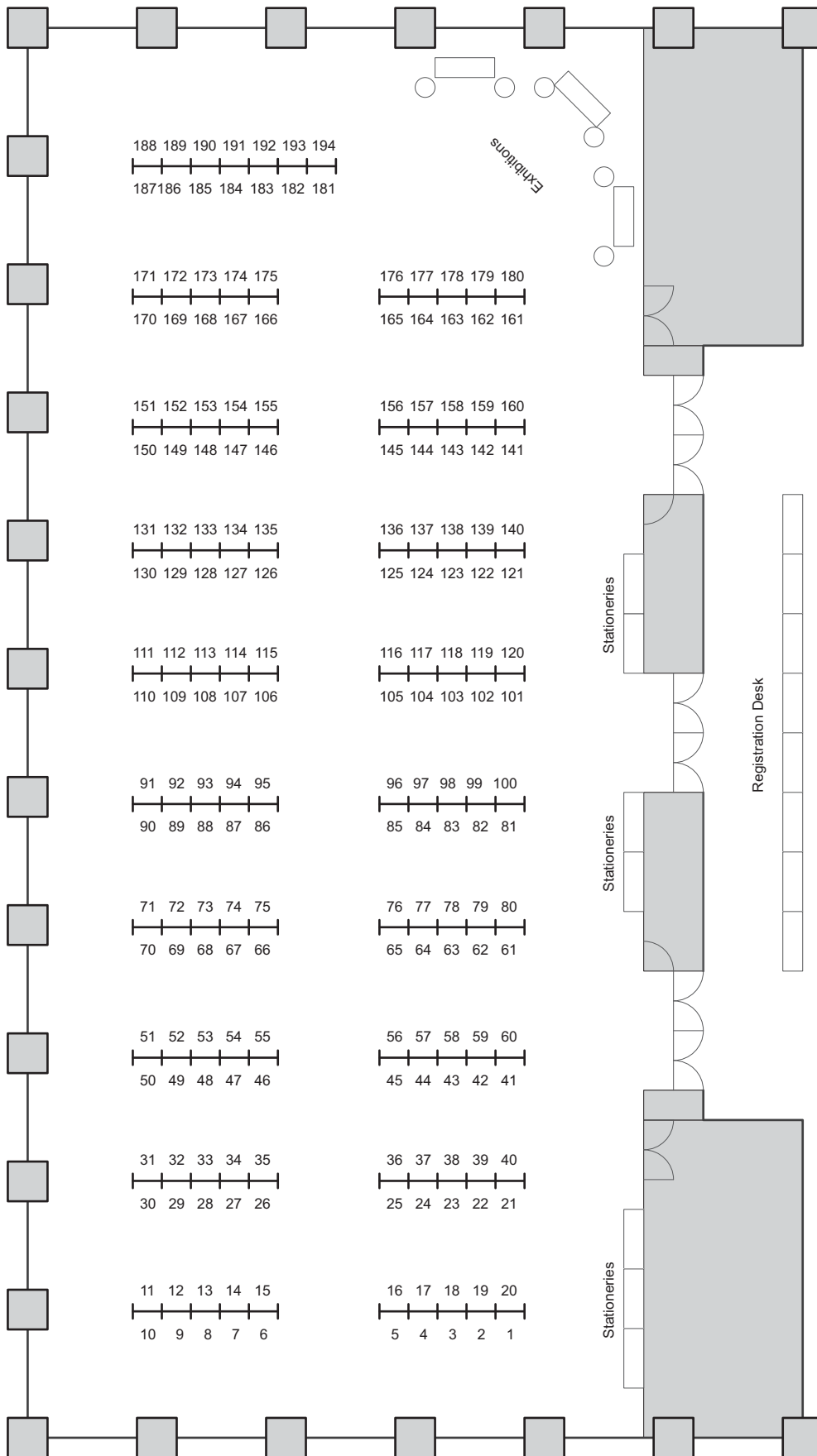
Aug. 29 (Wed)



# Yoshida Campus: Poster Room

## Aug. 27 (Mon), 28 (Tue), 30 (Thu)

### • Clock Tower 2F International Conference Hall



## Yoshida Campus: Room A

## 27 (Mon) Morning

Clock Tower 1F

9:10–13:10

## Opening Celemony (9:10–9:30)

Opening remarks by the chair of ISPC-18

**Kunihide Tachibana**

Greetings from the president of IPCS

**Jean-Michel Pouvesle**

Greetings from the president of IUPAC

**Bryan R. Henry**

Welcome messages from the dean of Graduate School of Engineering, Kyoto University

**Seiichi Nishimoto**Plenary (9:30–10:10) Chair: **K. Tachibana**

Abst. Page

27A-a0 The role of modeling of non-equilibrium plasmas: Scientific curiosity or industrial tool? 1

**Invited****Mark J. Kushner**

Short break (10:10–10:20)

Microdischarges and microplasmas (10:20–11:20) Chair: **B. N. Ganguly & S. Ishii**

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**O. Sakai**, T. Shirafuji and K. Tachibana27A-a3 Direct current parallel microdischarges in helium 209  
**R. Dussart**, T. Dufour, P. Lefauchaux, P. Ranson, L. Overzet, J.-B. Lee, M. Mandra and N. Sadeghi

Coffee break (11:20–11:40)

Microdischarges and microplasmas (11:40–13:10) Chair: **S. Ishii & B. N. Ganguly**

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Lunch (13:10–14:10)



## Yoshida Campus: Room B

27 (Mon) Morning

Law &amp; Economics 1F South-East

9:10–13:10

## Opening Celemony (9:10–9:30) Remote AV

Opening remarks by the chair of ISPC-18

**Kunihide Tachibana**

Greetings from the president of IPCS

**Jean-Michel Pouvesle**

Greetings from the president of IUPAC

**Bryan R. Henry**

Welcome messages from the dean of Graduate School of Engineering, Kyoto University

**Seiichi Nishimoto**

## Plenary (9:30–10:10) Remote AV

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27A-a0	The role of modeling of non-equilibrium plasmas: Scientific curiosity or industrial tool?	1
<b>Invited</b>	<b>Mark J. Kushner</b>	
	Short break (10:10–10:20)	

## Plasma sources: designs and characterizations (10:20–11:20) Chair: Y. Setsuhara &amp; G. Dinescu

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## Plasma sources: designs and characterizations (11:40–13:10) Chair: G. Dinescu &amp; Y. Setsuhara

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27B-a6	Low temperature deposition of mixed phase Si:H thin films by multi-hole-cathode VHF-PECVD <b>C. Jariwala</b> , A. Chainani, R. Eguchi, M. Matsunami, S. Shin, P. Kikani, S. Bhatt, K. L. Narasimhan, V. Dalal and P. I. John	270
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## Yoshida Campus: Room C

27 (Mon) Morning

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27C-a2	Organosilicon plasma deposition on microstructured substrate by microwave low pressure discharge and atmospheric pressure Townsend-like discharge <b>I. Savin de Larclause</b> , N. Gherardi, I. Enache, H. Caquineau, Y. Segui, F. Massines and P. Raynaud	356
27C-a3	Full surface wafer coating and direct patterning through localized SiO <sub>2</sub> CVD enhanced by atmospheric plasma at low temperature <b>E. Debourg</b> , <b>F. Benhalima</b> and T. Sindzingre	357
Coffee break (11:20–11:40)		
<b>Plasma deposition of inorganic films and hard coatings (11:40–13:10) Chair: A. Hatta &amp; F. Arefi-Kohsari</b>		
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27P-167	RF plasma system for medical waste treatment <b>G. Paskalov</b>	749
27P-168	Ozone production using dielectric barrier discharge reactor driven by pulse generator <b>K. Takaki</b> , T. Sato, K. Arima, S. Mukaigawa, T. Fujiwara and T. Miura	750
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## Yoshida Campus: Room A

## 27 (Mon) Afternoon

Clock Tower 1F

15:50–18:40

**Plasma deposition and treatment of polymers (15:50–17:00) Chair: M. R. Wertheimer**

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<b>Invited</b>	<b>Dirk Hegemann</b>	
27A-p2	The role of ions in thin film deposition in a pulsed acrylic acid RF discharge <b>S. Voronin</b> , M. Zelzer, C. Fotea, M. Alexander and <b>J. Bradley</b>	412
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	Coffee break (17:00–17:20)	

**Fundamentals of plasma-surface interactions (17:20–18:40) Chair: S. Neogi**

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27A-p5	A new concept of adhesion promotion in metal-polymer composites by introduction of covalently bonded hydrophobic spacers at interface <b>J. F. Friedrich</b> , R. Mix, S. Wettmarshausen and H. Sturm	6
27A-p6	Investigation of the alignment layers on fluorinated amorphous carbon films by plasma beam <b>T.-H. Chen</b> , J. Teng, C.-H. Liu, C.-Y. Lee, H. C. Tang, C.-H. Su and S. Lin	7
27A-p7	Application of radio frequency inductively coupled plasma (rf-ICP) in the measurement of physical properties of melts <b>A. Moradian</b> and J. Mostaghimi	8

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## 27 (Mon) Afternoon

Law & Economics 1F South-East		15:50–18:40
<b>Plasma chemical syntheses (15:50–17:00) Chair: U. Kortshagen &amp; R. Hatakeyama</b>		Abst. Page
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<b>Invited</b>	<b>Kostya (Ken) Ostrikov</b>	
27B-p2	Effects of hydrogen supply on growth of carbon nanotubes in CH <sub>4</sub> /H <sub>2</sub> plasmas <b>A. Okita</b> , Y. Suda, A. Oda, J. Nakamura, H. Sugawara and Y. Sakai	544
27B-p3	Effects of plasma ion irradiation on synthesis of nitrogen atom encapsulated fullerenes <b>S. Nishigaki</b> , S. Abe, T. Kaneko and R. Hatakeyama	545
Coffee break (17:00–17:20)		
<b>Plasma chemical syntheses (17:20–18:40) Chair: R. Hatakeyama &amp; U. Kortshagen</b>		Abst. Page
27B-p4	Nanostructuring metal bulk materials with reactive plasma <b>U. Cvelbar</b> , K. Ostrikov and M. Mozetič	546
27B-p5	RF thermal plasma synthesis of LaB <sub>6</sub> nanopowders <b>J. Szépvölgyi</b> , I. Mohai, K. A. Föglein, Z. Károly, L. Gál and M. Tóth	547
27B-p6	Synthesis of gold nanoplates and nanorods in aqueous solutions using gas-liquid interface discharge at atmospheric pressure <b>K. Furuya</b> , Y. Hirowatari, T. Ishioka and A. Harata	548
27B-p7	New in-situ sampling and analysis of the production of CeO <sub>2</sub> powders from liquid precursors using a novel wet collection system in a rf inductively coupled thermal plasma reactor <b>I. Castillo</b> and R. Munz	549

## Yoshida Campus: Room C

## 27 (Mon) Afternoon

Law & Economics 1F North-East		15:50–18:40
<b>Plasma processing for micro electronics and mechanics</b> (15:50–17:00) Chair: <b>S. Samukawa</b>		Abst. Page
27C-p1	Electron impact reactions in processing plasma for LSI device fabrications <b>K. Kinoshita</b>	321
27C-p2	Formation of SiN films on Si substrates and OLEDs at low temperature using VHF-CCP and improvement of the properties <b>M. Li</b> , T. Matsubara, K. Takeda, Y. Masumoto, T. Mori, S. Tada, H. Harukawa and M. Hori	322
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Coffee break (17:00–17:20)		
<b>Environmental applications</b> (17:20–18:40) Chair: <b>A. B. Murphy</b>		Abst. Page
27C-p4	Monitoring of the metal accumulation in vegetal tissues by laser induced plasma spectroscopy <b>J. Kaiser</b> , M. Galiova, K. Novotny, M. Liska, L. Reale, R. Malina and K. Palenikova	707
27C-p5	Production of biosyngas by gasification in steam plasma <b>M. Hrabovsky</b> , M. Konrad, V. Kopecky, M. Hlina, T. Kavka, O. Chumak and G. van Oost	708
27C-p6	Syngas production via partial oxidation of methane with plasma-assisted catalysis <b>Y. Chao</b> , M.-B. Chang, H.-M. Lee and C.-T. Huang	709
27C-p7	Diesel fuel reformation with a plasmatron V. Plaksin, <b>S. B. Joa</b> , M. K. Ko and H. J. Lee	710

## Yoshida Campus: Room A

## 28 (Tue) Morning

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<b>Plenary (9:10–9:50) Chair: D. B. Graves</b>		Abst. Page
28A-a0	Hollow cathode and hybrid atmospheric plasma sources	2
<b>Invited</b>	<b>Hana Baránková</b> and Ladislav Bardos	
Short break (9:50–10:00)		
<b>Plasma deposition and treatment of polymers (10:00–11:20) Chair: T. Wydeven &amp; O. Takai</b>		Abst. Page
28A-a1	Plasma deposition of functionalized coatings with acid/base properties for biomedical applications <b>E. Sardella</b> , R. Gristina, M. Nardulli, P. Favia and R. d'Agostino	414
28A-a2	Nitrogen-rich plasma polymer films deposited in atmospheric- and low-pressure plasmas for biomedical applications F. Truica-Marasescu, P.-L. Girard-Lauriault, S. Lerouge, F. Mwale, A. Lippitz, W. Unger, P. Desjardins and <b>M. R. Wertheimer</b>	415
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28A-a4	Stimuli-responsive polymer coating deposited by rf plasma <b>M. Haidopoulos</b> , F. Mirabella, M. Horgnies, P. Rouxhet, J.-F. Gohy and J.-J. Pireaux	417
Coffee break (11:20–11:40)		
<b>Plasma deposition and treatment of polymers (11:40–13:10) Chair: O. Takai &amp; T. Wydeven</b>		Abst. Page
28A-a5	Electron dynamics of low- pressure deposition plasma	418
<b>Invited</b>	<b>Hirotsugu Yasuda</b> , Loic Ledernez, Fethi Olcaytug and Gerald Urban	
28A-a6	Plasma deposition of organosilicon coatings as low-k dielectrics <b>A. Milella</b> , G. Aresta, R. d'Agostino, F. Fracassi and F. Palumbo	419
28A-a7	High rate MW-PCVD process for transparent hard coatings on large PC parts <b>K.-D. Nauenburg</b> , L. Alberts, R. Dreher, M. Kaiser and O. Stahlschmidt	420
28A-a8	Plasma polymers from RF sputtering of nylon <b>J. Hanus</b> , O. Polonskyi, J. Kousal, A. Choukourov, A. Grinevich, D. Slavinska and H. Biederman	421
Lunch (13:10–14:10)		

## Yoshida Campus: Room B

28 (Tue) Morning

Law & Economics 1F South-East		9:10–13:10
<b>Plenary</b> (9:10–9:50) Remote AV		Abst. Page
28A-a0	Hollow cathode and hybrid atmospheric plasma sources	2
<b>Invited</b>	<b>Hana Baránková</b> and Ladislav Bardos	
Short break (9:50–10:00)		
<b>Diagnostics and modeling in plasma chemistry</b> (10:00–11:20) Chair: <b>A. Kono &amp; A. von Keudell</b>		Abst. Page
28B-a1	Modeling nanodusty plasmas L. Ravi, S. Warthesen and <b>S. Girshick</b>	63
28B-a2	Chemical kinetic modeling of the remote plasma source and transport of atomic fluorine for chamber cleaning applications S. Gangoli, A. Johnson, <b>A. Fridman</b> , R. Pearce, A. Gutsol and A. Dolgopolsky	64
28B-a3	Real-time monitoring of anomalous-discharge in a high-density plasma chamber <b>M. Sato</b> , H. Ohtake and S. Samukawa	65
28B-a4	Improvement of accuracy for measurements of electron density and electron temperature with dual surface wave probes <b>K. Nakamura</b> , O. Hirano, H. Sugai and K. Kinoshita	66
Coffee break (11:20–11:40)		
<b>Diagnostics and modeling in plasma chemistry</b> (11:40–13:10) Chair: <b>A. von Keudell &amp; A. Kono</b>		Abst. Page
28B-a5	Modelling of a high power ICP source for negative ion production <b>Invited</b> <b>Gerjan J. M. Hagelaar</b> , Jean-Pierre Boeuf and A. Simonin	67
28B-a6	Plasma diagnostics on high power and high pressure VHF discharges <b>S. Nunomura</b> and M. Kondo	68
28B-a7	Exploration of the gas phase chemistry in microwave activated diamond depositing plasmas by laser spectroscopy and modelling <b>J. Ma</b> , J. Henney, A. Cheesman, M. Ashfold, S. Wright, G. Duxbury and Y. Mankelevich	69
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Lunch (13:10–14:10)		



## Yoshida Campus: Room C

28 (Tue) Morning

Law & Economics 1F North-East		10:00–13:10
<b>Plasma spray and thermal plasma material processing (10:00–11:20) Chair: T. Ishigaki &amp; F. Gitzhofer</b>		Abst. Page
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28C-a2	Experimental investigation of fully turbulent plasma jet and its interaction with ambient air <b>T. Kavka</b> , A. Maslani, V. Sember, V. Kopecky, O. Chumak and M. Hrabovsky	590
28C-a3	High-speed thermal imaging of yttria-stabilized zirconia droplets impinging on a substrate in plasma spraying <b>K. Shinoda</b> , H. Murakami, S. Kuroda, S. Oki, K. Takehara and T. G. Etoh	591
28C-a4	Peculiarities of plasma processing and spraying of mechanically activated metal and metal alloy powders modified with ultra-fine refractory particles <b>O. Solonenko</b> , A. Cherepanov, V. Poluboyarov, I. Gulyaev and A. Lapin	592
Coffee break (11:20–11:40)		
<b>Plasma spray and thermal plasma material processing (11:40–13:10) Chair: F. Gitzhofer &amp; T. Ishigaki</b>		Abst. Page
28C-a5	Modeling time-dependent phenomena in plasma spraying of powders and liquid precursors <b>Invited Armelle Vardelle</b> , C. Marchand, C. Chazelas and G. Mariaux	593
28C-a6	Modelling of the influence of welding gas composition on arc properties and weld depth in TIG welding <b>A. B. Murphy</b> , M. Tanaka, S. Tashiro, T. Satoh and J. Lowke	594
28C-a7	Investigation on magnetically driven transferred arc : experiments and numerical analyses <b>S. Takeuchi</b> , K. Yamamoto, T. Toh, H. Hamatani, J. Tanaka and K. Takeda	595
28C-a8	New development of 10 kW-class arbitrary-waveform modulated induction thermal plasmas 'AMITP' <b>Y. Tanaka</b> , Y. Morishita, K. Okunaga, S. Fushie and Y. Uesugi	596
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## Yoshida Campus: Poster

## 28 (Tue) Afternoon

Clock Tower 2F (191 posters)

14:10–15:50

## Fundamentals of plasma-surface interactions

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28P-5	Global evaluation and direct measurement of the energy transfer between an ICP argon plasma and a surface <b>R. Dussart</b> , A.-L. Thomann, N. Semmar, L. E. Pichon, J.-F. Lagrange, J. Mathias and S. Mazouffre	21
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28P-7	Edge and core mechanism for anomalous diffusion in a magnetized cold plasma <b>M. Pinheiro</b>	23
28P-8	Interaction of surface discharge plasma with Insulator in vacuum <b>G.-J. Zhang</b> , K.-K. Yu, N. Zheng, W.-B. Zhao and Z. Yan	24
28P-9	Numerical investigation of air trapping during splat formation <b>I. Choquet</b>	25
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28P-15	Oxidative coupling methane with carbon dioxide under pulse corona plasma over various catalysts <b>X.-L. Zhang</b> , X.-H. Li, J. Wang and X.-D. Yuan	31
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28P-17	O atoms lost adsorption/desorption processes on a porous photocatalytic material under plasma exposure <b>K. Allegraud</b> , O. Guaitella, L. Gatilova and A. Rousseau	33
28P-18	Study of plasma-solid interaction in electronegative gas mixtures: influence of substrate geometry <b>S. Novak</b> , R. Hrach, P. Bruna, P. Cerny and V. Hrachova	34
28P-19	Ion-assisted functional monolayer coating of arrays of nanorods in hydrogen plasmas <b>K. K. Ostrikov</b> , I. Levchenko, E. Tam, M. Keidar and S. Xu	35
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28P-169	Fabrication of ultra water-repellent surface by using capacitively-coupled plasma CVD with organosilicon reactant <b>N. Shimazu</b> , Y. Yun, N. Nanba, Y. Inoue, N. Saito and O. Takai	581
28P-170	Ethylene Epoxidation in low-temperature corona discharge <b>A. Tansuwan</b> , S. Chavadej and T. Sreethawong	582
28P-171	Zinc oxide film deposition by atmospheric thermal plasma CVD using Ar /air Working gas <b>Y. Ando</b> , S. Tobe and H. Tahara	583
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<b>Plasma aided combustion and aerodynamics</b>		<b>Abst. Page</b>
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28P-178	On the effect of water vapor on CH <sub>4</sub> oxidation in atmospheric pressure rotating discharge plasma reactor A. Khacef, <b>J. M. Cormier</b> and E. El Ahmar	648
28P-179	Kinetic mechanisms of plasma-aided combustion <b>E. I. Mintoussov</b> , S. E. Yankina, A. A. Nikipelov, S. M. Starikovskaya and A. Starikovskii	649
28P-180	Kinetics of plasma-aided ignition of hydrocarbons <b>I. Kosarev</b> , S. Kindusheva, N. Aleksandrov, S. M. Starikovskaya and A. Starikovskii	650
28P-181	Plasma aided coal combustion E. I. Karpenko, <b>V. E. Messerle</b> and A. B. Ustimenko	651
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28P-183	Analysis of air radical flow generated by pulsed discharge for combustion assist H. Nishiyama, <b>H. Takana</b> , S. Niikura, H. Shimizu, K. Katagiri and Y. Nakano	653
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28P-185	Experimental study of induced airflow of a DBD EHD actuator <b>B. Dong</b> , J.-M. Bauchire, J.-M. Pouvesle, P. Magnier and D. Hong	655
28P-186	Effect of AC electric fields on the flame liftoff in coflow jets S. H. Won, <b>M. S. Cha</b> , S. K. Ryu and S. H. Chung	656
28P-187	Detonation initiation by pulse corona discharge D. Medvedev, G. Konovalov, S. Zaitsev, V. Jivotov, M. Krotov, A. Borisov, S. Korobtsev, <b>B. Potapkin</b> and A. Dean	657



28P-188	Deflagration to detonation transition under initiation by high-voltage pulsed discharges <b>A. Rakitin</b> , V. Zhukov and A. Starikovskii	658
28P-189	Investigation of Impulse nanosecond discharge <b>M. Nudnova</b> , D. Roupasov and A. Starikovskii	659
28P-190	Low temperature plasma for combustion support at thermal power plants fired by pulverized coal P. Stefanovic, Z. Pavlovic, <b>D. Cvetinovic</b> and N. Zivkovic	660
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## Yoshida Campus: Room A

## 28 (Tue) Afternoon

Clock Tower 1F	15:50–18:40
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<b>Microdischarges and microplasmas (15:50–17:00) Chair: J. Engemann &amp; H. Shirai</b>	Abst. Page
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28A-p1	Nanoseconds pulsed nonequilibrium plasma discharges and applications	214
<b>Invited</b>	<b>Mounir Laroussi</b>	
28A-p2	Experimental and numerical study of an argon microhollow cathode plasma <b>N. Sadeghi</b> , X. Aubert, J.-P. Boeuf, J.-F. Lagrange, L. Pitchford and A. Rousseau	215
28A-p3	Study of surface charges behavior in PDP-like coplanar barrier discharges using an electro-optic crystal <b>T. Sakurai</b> , H. Yoda, K. Ishii and Y. Murakami	216
Coffee break (17:00–17:20)		

<b>Microdischarges and microplasmas (17:20–18:40) Chair: H. Shirai &amp; J. Engemann</b>	Abst. Page
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28A-p4	(Strongly coupled) micro-plasma formation during opening of a low current electrical contact <b>J.-L. Dorier</b> and C. Hollenstein	217
28A-p5	Electron kinetics in atmospheric-pressure RF microdischarges <b>F. Iza</b> and J. K. Lee	218
28A-p6	Finite element analysis of atmospheric pressure RF-excited plasma needle <b>Y. Sakiyama</b> and D. B. Graves	219
28A-p7	Numerical modeling of an atmospheric pressure methane-hydrogen micro-discharge <b>T. Farouk</b> , B. Farouk, A. Gutsol and A. Fridman	220

## Yoshida Campus: Room B

## 28 (Tue) Afternoon

Law & Economics East 1F		15:50–18:40
<b>Plasma deposition of inorganic films and hard coatings (15:50–17:00) Chair: H. Toyoda &amp; K. Hassouni</b>		
		Abst. Page
28B-p1	Novel quaternary Si-B-C-N films prepared by reactive magnetron sputtering	362
<b>Invited</b>	<b>Jaroslav Vlcek</b> , Jiri Houska, Stepan Potocky, Jiri Kalas, Stanislav Hreben, Jiri Capek, Petr Zeman and Vratislav Perina	
28B-p2	Preparation routes based on reactive magnetron sputtering for tungsten disulfide films ( $WS_{2-x}$ ) for thin film solar Cells	363
	<b>K. Ellmer</b> , S. Seeger, S. Brunken, M. Kunst and R. Mientus	
28B-p3	Electrochemical investigation of inorganic thin layers deposited by RF magnetron sputtering	364
	E. Angelini, <b>S. Grassini</b> , A. Palma, F. Rosalbino, F. Fracassi, F. Palumbo and R. d'Agostino	
	Coffee break (17:00–17:20)	
<b>Plasma deposition of inorganic films and hard coatings (17:20–18:40) Chair: K. Hassouni &amp; H. Toyoda</b>		
		Abst. Page
28B-p4	Temperature evolution and pore distribution in zirconia footprint deposits using atmospheric plasma spraying	365
	H. Salimijazi, L. Pershin, T. Coyle, <b>J. Mostaghimi</b> , S. Chandra, L. Rosenzweig and E. Moran	
28B-p5	Preparation of DLC films at atmospheric pressure by nanopulse plasma CVD	366
	<b>N. Ohtake</b> , Y. Kondo, T. Saito, M. Saito and T. Terazawa	
28B-p6	Dies service performance enhancement for aluminum alloy die casting by nano-composite PVD ceramic coatings	367
	E. Aimo Boot, F. Cartasegna, G. Krawczyk, <b>M. Perucca</b> , G. Piacenza, M. Rosso, E. Torres and D. Ugues	
28B-p7	Bulk-like beryllium film formation by thermionic vacuum arc method	368
	<b>C. P. Lungu</b> , I. Mustata, V. Zaruschi, A. M. Lungu, A. Anghel, G. Burcea, V. Bailescu, G. Dinuta, G. Serban, F. Miculescu, I. Vata and E. Ivanov and D. Dudu	

## Yoshida Campus: Room C

## 28 (Tue) Afternoon

Law &amp; Economics East 2F

15:50–18:40

**Plasma sources: designs and characterizations (15:50–17:00)** Chair: **W. Stoffels & K. Terashima** Abst. Page

28C-p1	Radiofrequency expanding plasmas at low, intermediate and atmospheric pressure and their applications	272
<b>Invited</b>	<b>Gheorghe Dinescu</b> and E. R. Ionita	
28C-p2	Experimental study on the arc root behavior of a DC non-transferred plasma jet	273
	<b>H. Huang</b> , W. Pan, X. Meng and C. Wu	
28C-p3	Modelling and comparison of different design solutions for DC transferred arc plasma cutting torches	274
	<b>V. Colombo</b> , E. Ghedini, S. Dallavalle and M. Vancini	
	Coffee break (17:00–17:20)	

**Plasma sources: designs and characterizations (17:20–18:40)** Chair: **K. Terashima & W. Stoffels** Abst. Page

28C-p4	Capacitive discharges driven by combined DC/RF sources	275
	<b>M. A. Lieberman</b> , E. Kawamura, A. J. Lichtenberg and E. A. Hudson	
28C-p5	Global model of a dual-frequency capacitive discharge	276
	<b>P. Chabert</b> , P. Levif and M. M. Turner	
28C-p6	Pulsed neon xenon discharge kinetics associated to pulse duration	277
	S. Point, E. Robert, S. Dozias, C. Cachoncinlle, R. Viladrosa and <b>J.-M. Povesle</b>	
28C-p7	Spatially inhomogeneous electron kinetics in oxygen plasmas	278
	G. K. Grubert and <b>D. Loffhagen</b>	

**Katsura Campus: Room A****29 (Wed) Morning****Rohm Plaza** **9:10–13:00****Biomedical applications (9:10–11:00) Chair: P. Favia** Abst. Page

29A-a1	Atmospheric pressure non-thermal plasma sterilization of microorganisms in liquids and on the surfaces	663
<b>Invited</b>	<b>Yuri Akishev</b> , M. Grushin, V. Karalnik, N. Trushkin, V. Kholodenko, V. Chugunov, E. Kobzev, N. Zhirkova and I. Irkhina	
29A-a2	Inactivation of Aquatic microorganisms by low frequency pulsed discharges	664
	<b>C. W. Chen</b> , H.-M. Lee and M.-B. Chang	
29A-a3	Internal sterilization of wrapped medical implements using large-volume microwave plasmas	665
	<b>L. Xu</b> , Y. Ohno, A. Ogino, Y. Koide and M. Nagatsu	
29A-a4	Sterilization of living human and animal tissue by non-thermal atmospheric pressure dielectric barrier discharge plasma	666
	<b>G. Fridman</b> , A. Shereshevsky, M. Balasubramanian, M. Peddinghaus, A. Brooks, A. Gutsol, V. Vasilets, A. Fridman and G. Friedman	
29A-a5	Pulsed RF plasma sterilization of medical packaging	667
	<b>Y. L. M. Creighton</b> , T. Huijser and M. Broekhuijsen	

Coffee break (11:00–11:20)

**Plasma deposition and treatment of polymers (11:20–13:00) Chair: D. Hegemann** Abst. Page

29A-a6	Tailoring of functional nano-patterned surfaces for biosensing applications by combination of plasma processes and electron-beam lithography	422
	F. Bretagnol, L. Ceriotti, A. Valsesia, T. Sasaki, D. Gilliland, <b>G. Ceccone</b> , P. Colpo and F. Rossi	
29A-a7	Selective amino functionalization of polymer surfaces: UV-laser irradiation compared to plasma processing	423
	M. Jäger, <b>A. Meyer-Plath</b> , F. Sonntag, J. F. Friedrich and R. Poll	
29A-a8	New plasmas for polymer surface functionalization	424
	<b>R. Mix</b> , R.-D. Schulze, R. Joshi, A. Meyer-Plath and J. F. Friedrich	
29A-a9	Functionalized surfaces by plasma polymerization : a new strategy to reach reversible adhesion between two substrates	425
	<b>V. Roucoules</b> , F. Siffer, A. Ponche and M.-F. Vallat	
29A-a10	Effect of time-modulated surface-wave plasma treatment on chemical modification of polyurethane	426
	<b>M. Kral</b> , A. Ogino, K. Narushima, M. Yamashita and M. Nagatsu	

**Cultural Program: Room L****29 (Wed) Morning****B-Cluster Admin Bldg 3F Conference Hall** **9:30-12:30**

Lectures on Kyoto and Japanese Culture in parallel with the scientific sessions. See page 3 for details.

Kyoto—*Past and Present*: An introduction to Japan's Ancient Capital**Bonnie Jennifer Shikiko Kawakami** and Junko Kawai**Excursion:****29 (Wed) Afternoon****Departing from Rohm Plaza** **13:10-18:00**

Lunch is served on the tour bus.

**Katsura Campus: Room B****29 (Wed) Morning****B-Cluster Admin Bldg 1F Katsura Hall 9:10–13:00****Environmental applications (9:10–11:00) Chair: K. Okazaki & U. Kogelschatz Abst. Page**

29B-a1	Thermal plasma treatment of detention pond sludges - Toward solution to non-point source pollutants	711
<b>Invited</b>	<b>Jen-Shih Chang</b> , O. L. Li and Y. Guo	
29B-a2	Analyses of fine particle formations by pulsed arc electrohydraulic discharges in water with Fe and Ti electrodes	712
	<b>T. Ikeda</b> , H. Li, K. Teii and J.-S. Chang	
29B-a3	Submerged thermal plasma technology for process liquor treatment	713
	<b>G. Soucy</b> , L. Fortin, G. Poirier, P. Quintal and L. Armstrong	
29B-a4	Organic liquid waste gasification by underwater thermal plasma	714
	<b>N. Boudesocque</b> , F. Lemort, C. Girold, C. Lafon, C. Vandesteendam and J.-M. Baronnet	
29B-a5	Bactericidal effects of positively and negatively charged cluster ions generated by atmospheric plasma discharge	715
	<b>K. Nishikawa</b> and H. Yagi	
	Coffee break (11:00–11:20)	

**Environmental applications (11:20–13:00) Chair: U. Kogelschatz & K. Okazaki Abst. Page**

29B-a6	Study on plasma incineration and vitrification for simulative waste from NPPs	716
	C. Cheng, D. Tang and <b>H. Tong</b>	
29B-a7	Reduction of iron ore by a mixture of Ar-H <sub>2</sub> with CO and CO <sub>2</sub> under plasma application	717
	<b>K. Badr</b> , E. Bäck and W. Krieger	
29B-a8	The plasma-catalytic processing of Aromatic, Saturated and Unsaturated hydrocarbons for environmental clean-up	718
	<b>A. M. Harling</b> , V. Demidiouk, S. Futamura, S. L. Hill, H.-H. Kim and J. C. Whitehead	
29B-a9	Additive effect of water on the reaction behavior of VOCs in nonthermal plasma	719
	<b>S. Futamura</b> , T. Terasawa and M. Sugasawa	
29B-a10	Recent experiments with diesel particulate and NO <sub>x</sub> reduction systems based on nonthermal plasma combined processes	720
	<b>M. Okubo</b> , T. Kuroki, K. Yoshida, H. Fujishima, K. Otsuka and T. Yamamoto	

**Cultural Program: Room L****29 (Wed) Morning****B-Cluster Admin Bldg 3F Conference Hall 9:30-12:30**

Lectures on Kyoto and Japanese Culture in parallel with the scientific sessions. See page 3 for details.

Kyoto—*Past and Present*: An introduction to Japan's Ancient Capital  
**Bonnie Jennifer Shikiko Kawakami** and Junko Kawai**Excursion:****29 (Wed) Afternoon****Departing from Rohm Plaza 13:10-18:00**

Lunch is served on the tour bus.

**Katsura Campus: Room C****29 (Wed) Morning****C-Cluster C1 Bldg 3rd Blk 1F Lecture Hall 9:10–13:00****Plasma aided combustion and aerodynamics (9:10–11:00) Chair: J. -M. Povesle Abst. Page**

29C-a1	Micro plasma thruster for ultra small satellites: plasma chemical and aerodynamical aspects	641
<b>Invited</b>	<b>Koichi Ono</b>	
29C-a2	Low-temperature ignition of hydrocarbons by repetitively pulsed, nanosecond pulse duration plasma A. Bao, Y. G. Utkin, S. Keshav and <b>I. V. Adamovich</b>	642
29C-a3	Spark ignited methane/air mixtures: experimental and modelling studies <b>J.-M. Bauchire</b> , C. Zaepffel and D. Hong	643
29C-a4	Forcing Mechanisms in a direct-Current surface plasma Actuator in a supersonic flow <b>J. Shin</b> , S. Mahadevan, V. Narayanaswamy, N. Clemens and L. Raja	644
29C-a5	Measurement of instantaneous gas flow induced by plasma actuator with laser Doppler velocimeter <b>N. Takeuchi</b> , K. Yasuoka and S. Ishii	645
	Coffee break (11:00–11:20)	

**Plasma chemical syntheses (11:20–13:00) Chair: Y. Pu Abst. Page**

29C-a6	Synthesis of amorphous silicon oxynitride nanowires from silicon wafers by ammonia plasma <b>J. Zheng</b> , X. Song, X.-G. Li and Y.-K. Pu	550
29C-a7	In-liquid plasma chemical deposition <b>Y. Takahashi</b> , H. Toyota, S. Nomura and S. Mukasa	551
29C-a8	Reforming of CO <sub>2</sub> -containing natural gas with partial oxidation using an AC gliding arc discharge system <b>S. Chavadej</b> , N. Rueangjitt and T. Sreethawong	552
29C-a9	Plasma conversion of hydrocarbons and fuels into hydrogen-containing gas A. Babaritskiy, M. Bibikov, F. Chebankov, M. Deminsky, S. Dyomkin, V. Jivotov, A. Moskovskiy, V. Rusanov, R. Smirnov and <b>B. Potapkin</b>	553
29C-a10	Synthesis gas production from methane and air mixture with a vortex gliding arc reactor <b>J. Heo</b> , J.-W. Choi, H. Lee, H. Sekiguchi and H. K. Song	554

**Cultural Program: Room L****29 (Wed) Morning****B-Cluster Admin Bldg 3F Conference Hall 9:30-12:30**

Lectures on Kyoto and Japanese Culture in parallel with the scientific sessions. See page 3 for details.

Kyoto—*Past and Present*: An introduction to Japan's Ancient Capital  
**Bonnie Jennifer Shikiko Kawakami** and Junko Kawai

**Excursion:****29 (Wed) Afternoon****Departing from Rohm Plaza 13:10-18:00**

Lunch is served on the tour bus.

## Yoshida Campus: Room A

30 (Thu) Morning

Clock Tower 1F		9:10–13:10
<b>Plenary (9:10–9:50) Chair: A. Fridman</b>		Abst. Page
30A-a0	Use of low pressure plasma discharge for the decontamination and sterilization of medical devices	3
<b>Invited</b>	<b>François Rossi</b>	
Short break (9:50–10:00)		
<b>Plasma deposition and treatment of polymers (10:00–11:20) Chair: H. K. Yasuda &amp; H. Biederman</b>		Abst. Page
30A-a1	Wood surface functionalisation by means of atmospheric plasma pressure polymerization E. Aimo Boot, G. Benveniste, F. Cartasegna, D. D'Angelo, <b>M. Perucca</b> , G. Piacenza and R. Zanuttini	427
30A-a2	Influence of hydrogen content in polymer chemical structure on surface modification in N <sub>2</sub> /H <sub>2</sub> atmospheric pressure plasmas <b>C. Sarra-Bournet</b> , G. Ayotte, S. Turgeon, F. Massines and G. Laroche	428
30A-a3	In-line atmospheric pressure plasma (APP) treatment of synthetic fibres and fabrics. <b>C. Pavan</b> , F. Parisi, G. Rombolà, S. Gross, P. Quagliotto and G. Viscardi	429
30A-a4	The role of chemical structures in amorphous plasma enhanced chemical vapour deposited titanium oxide-like films for their absorption in the uv range <b>A. Sonnenfeld</b> , R. Hauert, U. Mueller and P. Rudolf von Rohr	430
Coffee break (11:20–11:40)		
<b>Plasma deposition and treatment of polymers (11:40–13:10) Chair: H. Biederman &amp; H. K. Yasuda</b>		Abst. Page
30A-a5	Solution plasma processing (SPP)	431
<b>Invited</b>	<b>Osamu Takai</b>	
30A-a6	Deposition of poly(acrylic acid) coatings by electro-spray on DBD pretreated PE films <b>L. Tatoulian</b> , F. Arefi-Khonsari, M. Tatoulian and J. P. Borra	432
30A-a7	Pretreatment of polyolefins and deposition of thin organic films from HMDSO/O <sub>2</sub> mixtures with an atmospheric pressure plasma jet <b>U. Lommatzsch</b> , J. Ihde, D. Pasedag and H.-E. Wagner	433
30A-a8	Characterization of plasma deposited allylamine polymer and its effects on separation property of composite membranes <b>D. T. Tran</b> , S. Mori and M. Suzuki	434
Lunch (13:10–14:10)		



## Yoshida Campus: Room B

30 (Thu) Morning

Law & Economics 1F South-East		9:10–13:10
<b>Plenary</b> (9:10–9:50) Remote AV		Abst. Page
30A-a0	Use of low pressure plasma discharge for the decontamination and sterilization of medical devices	3
<b>Invited</b>	<b>François Rossi</b>	
Short break (9:50–10:00)		
<b>Non-equilibrium effects and atmospheric pressure plasma processes</b> (10:00–11:20) Chair: <b>L. Bardos &amp; T. Watanabe</b>		Abst. Page
30B-a1	Fluorination of polymers by means of atmospheric pressure glow dielectric barrier discharges <b>F. Fanelli</b> , R. d'Agostino, F. Fracassi and E. Magrino	139
30B-a2	Atmospheric O <sub>2</sub> and H <sub>2</sub> DBD plasmas for decontamination and reduction of steel surfaces E. Michel, E. Silberberg and <b>F. Reniers</b>	140
30B-a3	Atmospheric pressure PECVD for crystalline silicon solar wafer processing <b>V. Hopfe</b> , I. Dani, E. Lopez and M. Heintze	141
30B-a4	Gas phase diagnostics in nonequilibrium atmospheric-pressure pulsed remote plasma for glass cleaning <b>M. Iwasaki</b> , M. Ito, T. Yara, T. Uehara and M. Hori	142
Coffee break (11:20–11:40)		
<b>Non-equilibrium effects and atmospheric pressure plasma processes</b> (11:40–13:10) Chair: <b>T. Watanabe &amp; L. Bardos</b>		Abst. Page
30B-a5	Enhancing the production of reactive plasma species without compromising plasma stability in cold atmospheric discharges	143
<b>Invited</b>	<b>Michael Kong</b> , Jian J. Shi, James L. Walsh, S. Perni and Xutao T. Deng	
30B-a6	Comparison of N <sub>2</sub> -O <sub>2</sub> and N <sub>2</sub> -N <sub>2</sub> O Townsend dielectric barrier discharge E.-T. Es-Sebbar, N. Gherardi and <b>F. Massines</b>	144
30B-a7	Influences of different Factors on dielectric barrier discharge in air <b>G.-J. Zhang</b> , Y. Yang, G.-Q. Yang, Y.-B. Zhang and W.-Y. Zhang	145
30B-a8	Comparison of industrial atmospheric pressure plasma (APP) treatments and vacuum plasma treatments <b>F. Parisi</b> , G. Rombolà, C. Pavan and D. Daprà	146
Lunch (13:10–14:10)		

## Yoshida Campus: Room C

30 (Thu) Morning

Law & Economics 1F North-East		10:00–13:10
<b>Fundamentals of plasma-surface interactions</b> (10:00–11:20) Chair: <b>J. Vlcek &amp; M. Hori</b>		Abst. Page
30C-a1	Energetic neutral particle production in the cathode sheath of direct-current discharges <b>T. Ito</b> and M. Cappelli	9
30C-a2	Surface catalytic contributions to molecule conversion in plasmas <b>R. Zijlmans</b> , S. Welzel, O. Gabriel, G. Yagci, J. Röpcke, F. Hempel, D. Schram and R. Engeln	10
30C-a3	Impact of reactor walls chemical composition on radicals densities in the chlorine based silicon etching ICP plasmas <b>N. Sadeghi</b> , G. Cunge and R. Ramos	11
30C-a4	Molecular dynamics simulations of low energy ion bombardment on gallium arsenide surfaces <b>E. Despiau-Pujo</b> , P. Chabert and D. B. Graves	12
Coffee break (11:20–11:40)		
<b>Fundamentals of plasma-surface interactions</b> (11:40–13:10) Chair: <b>M. Hori &amp; J. Vlcek</b>		Abst. Page
30C-a5	Insights into plasma-surface interactions from molecular dynamics simulations and beam experiments <b>Invited</b> <b>David B. Graves</b> , J. J. Végh and D. G. Nest	13
30C-a6	Molecular dynamics simulation of plasma surface interactions for reactive ion etching and thin film formation <b>S. Hamaguchi</b> , H. Hashimoto, M. Matsukuma, T. Takizawa, M. Taguchi and M. Yamashiro	14
30C-a7	Effects of ultraviolet (UV) light irradiation on sputtering yields by CF <sub>3</sub> ion beam injections <b>K. Ikuse</b> , S. Yoshimura, M. Kiuchi, T. Takizawa, T. Toyoshima, K. Karahashi and S. Hamaguchi	15
30C-a8	Plasma surface interactions: the key to EUVL viability <b>D. Ruzic</b> , M. Neumann, H. Shin, H. Qui, J. Spencer, K. Thompson, S. Srivastava and W. Lytle	16
Lunch (13:10–14:10)		

## Yoshida Campus: Poster

## 30 (Thu) Afternoon

Clock Tower 2F (193 posters)

14:10–15:50

## Diagnostics and modeling in plasma chemistry

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30P-183	Novel structured yttria-stabilized zirconia coatings fabricated by twin hybrid thermal plasma spraying <b>T. Ma</b> , K. Eguchi, M. Kambara and T. Yoshida	629
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30P-187	Productions of carbon nanotubes in high temperature thermal plasma <b>E. Ringdalen</b> , B. Monsen, R. Jensen and O. Raaness	633
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30P-189	The effectiveness of prevailing plasma conditions in the synthesis of high temperature resistance mineral fibre <b>V. Valincius</b> , R. Kezelis, V. Valinciute and P. Valatkevicius	635
30P-190	Mechanical testing of extremely thick plasma-sprayed alumina layers <b>P. Cibor</b> and K. Neufuss	636

30P-191	Plasma processing of spray-dried YSZ powder and formation of splats from hollow molten particles impinging onto substrate <b>O. Solonenko</b> , I. Gulyaev, E. Kartaev and A. Smirnov	637
30P-192	Thermal plasma treatment of graphite powders - modification of the surface <b>R. Mach, H.-E. Maneck</b> , F. Oleszak, A. Meyer-Plath, B. Peplinski, S. Benemann and J. F. Friedrich	638
30P-193	Purification of metallurgical grade silicon by Ar-O <sub>2</sub> RF thermal plasma treatment with molten bath biasing S. Rousseau, A. Soric, M. Benmansour, <b>D. Morvan</b> and J. Amouroux	639

**Yoshida Campus: Room A****30 (Thu) Afternoon****Clock Tower 1F** **15:50–18:20****Biomedical applications (15:50–18:20) Chair: M. Laroussi & T. Akitsu** Abst. Page

30A-p1	Plasma tuning of surface chemistry for driving cell behavior	668
<b>Invited</b>	<b>Riccardo d'Agostino</b> , Pietro Favia, Eloisa Sardella, M. Nardulli, Linda Lopez, B. R. Pistillo and Roberto Gristina	
30A-p2	Industrial operation of magnetron plasma polymerization for biocompatible nanofilm encapsulation of contact lens	669
	<b>Y. Matsuzawa</b> and H. Yasuda	
30A-p3	Improved biocompatibility of titanium by plasmachemical amino functionalization	670
	<b>A. Ohl</b> , B. Finke, F. Luethen, K. Schröder, B. Nebe and J. Rychly	
30A-p4	Plasma assisted production of chemical nano-patterns based on colloidal lithography: application to bio-interfaces	671
	<b>A. Valsesia</b> , P. Colpo, F. Bretagnol, G. Ceccone and F. Rossi	
30A-p5	Adhesion and stability of fluorocarbon thin films on 316L stainless steel for stent coatings	672
	<b>F. Lewis</b> , P. Horny, P. Hale, M. Touzin, S. Turgeon, M. Tatoulian and D. Mantovani	
30A-p6	Galactosamine immobilization on plasma modified polystyrene to enhance hepatocytes functions	673
	<b>P. Favia</b> , L. Lopez, R. Gristina, M. Nardulli, M. Belviso and R. d'Agostino	
30A-p7	Thiol based plasma polymerized films on piezoelectric quartz crystal surfaces for a biosensor	674
	B. Ozansoy, D. Çökeliler, H. Göktaş and <b>S. Mutlu</b>	

**Westin Miyako Hotel: Social Dinner****30 (Thu) Evening****West Bldg. 4F Mizuho Room** **19:00–21:00**

Shuttle buses depart successively from the spot in front of Clock Tower between 18:20 and 18:40 (See page 4).

The awarding ceremony for **Plasma Chemistry Award 2007** is included.

**Yoshida Campus: Room B****30 (Thu) Afternoon**

Law &amp; Economics 1F South-East

15:50–18:20

Clusters, particles and powders (15:50–18:20) Chair: <b>K. Ostorikov &amp; M. Shiratani</b>		Abst. Page
30B-p1 <b>Invited</b>	Plasma synthesis of group IV quantum dots for luminescence and photovoltaic applications <b>Uwe Kortshagen</b> , Ryan Gresback, Zachary Holman, Xiaodong Pi and Lorenzo Mangolini	501
30B-p2	Nonthermal plasma synthesis of conductive germanium nanocrystal films for photovoltaic applications <b>Z. Holman</b> , R. Gresback and U. Kortshagen	502
30B-p3	Revealing deposition of clusters into a-Si:H by using multi-hollow discharge plasma CVD method <b>K. Koga</b> , W. M. Nakamura, D. Shimokawa and M. Shiratani	503
30B-p4	Gas-atom encapsulated silicon fullerenes formed by reactions of rare-gas ions with silicon plasmas <b>T. Kaneko</b> , K. Ejiri, M. Yabuno and R. Hatakeyama	504
30B-p5	Kinetics of 2D-3D transformations of carbon nanostructures I. Lebedeva, <b>A. Knizhnik</b> and B. Potapkin	505
30B-p6	Investigations of the growth process and the morphology of “smart nanoparticles” R. Weiß, S. Hong, J. Ransch and <b>J. Winter</b>	506
30B-p7	Fast plasma assisted treatment of solid-state micro-sized particulate material A. Sonnenfeld, A. Spillmann, C. Arpagaus and <b>P. Rudolf von Rohr</b>	507

**Westin Miyako Hotel: Social Dinner****30 (Thu) Evening**West Bldg. 4F *Mizuho* Room

19:00–21:00

Shuttle buses depart successively from the spot in front of Clock Tower between 18:20 and 18:40 (See page 4).

The awarding ceremony for **Plasma Chemistry Award 2007** is included.

## Yoshida Campus: Room C

30 (Thu) Afternoon

Law &amp; Economics 1F North-East

15:50–18:20

Plasma processing for micro electronics and mechanics (15:50–18:20) Chair: K. Ono &amp; J. Winter

Abst. Page

30C-p1	Porous low- <i>k</i> SiOCH etching technology by high-precision radical control	324
<b>Invited</b>	<b>Masaru Hori</b>	
30C-p2	Plasma etching damages on low- <i>k</i> films due to VUV light, UV light, radicals and ions <b>S. Takashima</b> , S. Uchida, M. Fukasawa, K. Ohshima, K. Nagahata, T. Tatsumi and M. Hori	325
30C-p3	Effects of CF <sub>3</sub> I plasma for reducing UV irradiation damage in dielectric film etching processes <b>Y. Ichihashi</b> , Y. Ishikawa, R. Shimizu, H. Mizuhara, M. Okigawa and S. Samukawa	326
30C-p4	Porous SiOCH, SiCH, and SiO <sub>2</sub> etching in inductively coupled fluorocarbon plasma with a pulsed bias: surface analyses and etch rate modeling V. Raballand, G. Cartry and <b>C. Cardinaud</b>	327
30C-p5	Low- <i>k</i> dielectric etching using Groovy ICP plasma source <b>G. Vinogradov</b>	328
30C-p6	Effects of geometrically different microstructures on etching profiles <b>H. Fukumoto</b> , K. Eriguchi and K. Ono	329
30C-p7	Hydrogen plasma as assisted thermal curing for ultra low <i>k</i> material <b>A. Zenasni</b> , V. Jousseume, L. Favennec, P. Maury and M. Payet	330

## Westin Miyako Hotel: Social Dinner

30 (Thu) Evening

West Bldg. 4F Mizuho Room

19:00–21:00

Shuttle buses depart successively from the spot in front of Clock Tower between 18:20 and 18:40 (See page 4).

The awarding ceremony for **Plasma Chemistry Award 2007** is included.

## Yoshida Campus: Room A

## 31 (Fri) Morning

Clock Tower 1F		9:10–13:00
<b>Plenary (9:10–9:50) Chair: T. Yoshida</b>		Abst. Page
31A-a0	Understanding plasma spray coating process: a modeling approach <b>Invited</b> Javad Mostaghimi	4
Short break (9:50–10:00)		
<b>Diagnostics and modeling in plasma chemistry (10:00–11:20) Chair: C. Oehr &amp; K. Sasaki</b>		Abst. Page
31A-a1	Non-equilibrium plasma effect on the combustion limits and the normal premixed flame velocity in the methane-air mixtures V. Chorkov, M. Deminsky, M. Strelkova, B. Potapkin and A. Zizin	71
31A-a2	Diagnostics and kinetics of fluorocarbon radicals in pulsed CF <sub>4</sub> /H <sub>2</sub> RF plasmas J. Meichsner, O. Gabriel, S. Stepanov and M. Geigl	72
31A-a3	Emission of Ba atoms from the electrode of a low-pressure fluorescent lamp operated by glow and arc discharge modes T. Ueda, Y. Egashira, A. H. Ahmed Samir, G. Yamashita, Y. Manabe, Y. Yamagata and K. Uchino	73
31A-a4	Diagnostic of water plasma by time resolved optical spectroscopy C. Miron, M. A. Bratescu, N. Saito and O. Takai	74
Coffee break (11:20–11:40)		
<b>Diagnostics and modeling in plasma chemistry (11:40–13:00) Chair: K. Sasaki &amp; C. Oehr</b>		Abst. Page
31A-a5	H <sub>2</sub> O-Ar plasma property functions for modeling of hybrid water-gas plasma torch P. Krenek and M. Hrabovsky	75
31A-a6	Determination of particle fluxes in an atmospheric pressure DC plasma jet N. Bibinov, D. Dudek, P. Awakowicz and J. Engemann	76
31A-a7	Investigation on the energy distribution in argon transferred arcs R. Bini and M. I. Boulos	77
31A-a8	Modelling of stable and unstable rotation modes for a DC arc A. Westermoen and J. A. Bakken	78

## Closing Celemony: Room A

Clock Tower 1F		13:00–13:20
Best paper awards of ISPC-18 Kunihide Tachibana		
IPCS general assembly Jean-Michel Pouvesle		
Announcements on GRC 2008 and ISPC-19 Jean-Michel Pouvesle and Jörg Winter		
Closing remarks Kunihide Tachibana		
Clock Tower 2F		13:20–13:50
<b>Closing reception / Lunch break before Industrial Workshop</b>		
Light meal is served.		

## Yoshida Campus: Room B

## 31 (Fri) Morning

Law & Economics 1F South-East	9:10–13:00
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Plenary (9:10–9:50) Remote AV	Abst. Page
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31A-a0	Understanding plasma spray coating process: a modeling approach	4
<b>Invited</b>	<b>Javad Mostaghimi</b>	
	Short break (9:50–10:00)	

<b>Non-equilibrium effects and atmospheric pressure plasma processes (10:00–11:20)</b> Chair: <b>S. Hamaguchi &amp; F. Massines</b>	Abst. Page
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31B-a1	Effects of conduction and displacement currents on Ar metastable production efficiency in a short pulse excited DBD R. J. Leiweke and <b>B. N. Ganguly</b>	147
31B-a2	Unipolar discharge phenomena in an atmospheric pressure helium plasma generated in dielectric tube <b>R. Ye</b> and W. Zheng	148
31B-a3	Experimental studies and modeling of an atmospheric pressure plasma working in the nanosecond regime coupled with a catalytic bed <b>X. Duten</b> , M. Redolfi, N. Aggadi, A. Michau and K. Hassouni	149
31B-a4	Time resolved investigation on a nanosecond pulsed discharge for combustion triggering <b>P. Tardiveau</b> , N. Moreau, C. Postel, F. Jorand, S. Pasquiers and P. Vervisch	150
	Coffee break (11:20–11:40)	

<b>Non-equilibrium effects and atmospheric pressure plasma processes (11:40–13:00)</b> Chair: <b>F. Massines &amp; S. Hamaguchi</b>	Abst. Page
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31B-a5	Direct reforming of biogas using non-equilibrium plasma Y. Sekine, <b>J. Yamadera</b> , E. Kikuchi, M. Matsukata and S. Nakamura	151
31B-a6	Mechanisms of conversion of heavy hydrocarbons in biogas initiated by pulsed corona discharges V. A. Bityurin, <b>E. A. Filimonova</b> and G. V. Naidis	152
31B-a7	Characteristic of methane processing by rotating arc reactor <b>D. H. Lee</b> , K.-T. Kim, Y.-H. Song and M. S. Cha	153
31B-a8	Simulation of transient non-equilibrium plasma in a gliding arc B. Wu, L. Lin and <b>C. Wu</b>	154

## Closing Celemony: Room B (Remote AV)

Law & Economics 1F South-East	13:00–13:20
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Best paper awards of ISPC-18 <b>Kunihide Tachibana</b>
IPCS general assembly <b>Jean-Michel Povesle</b>
Announcements on GRC 2008 and ISPC-19 <b>Jean-Michel Povesle</b> and <b>Jörg Winter</b>
Closing remarks <b>Kunihide Tachibana</b>

Clock Tower 2F	13:20–13:50
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Closing reception / Lunch break before Industrial Workshop
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Light meal is served.

## Yoshida Campus: Room C

31 (Fri) Morning

Law & Economics 1F North-East		10:00–13:00
<b>Plasma spray and thermal plasma material processing (10:00–11:20) Chair: J. Heberlein</b>		Abst. Page
31C-a1	Deposition of YSZ coating using molecular gases for DC plasma generation <b>L. Pershin</b> , L. Chen, J. Mostaghimi and T. Coyle	597
31C-a2	Suspension plasma spraying of alumina coatings: process and coating structure O. Tingaud, R. Etchart-salas, V. Rat, J.-F. Coudert, H. Ageorges, A. Grimaud, A. Denoirjean, <b>P. Fauchais</b> , G. Montavon, N. Caron and S. Alexandre	598
31C-a3	Comparative study on nano-structured SOFC electrolyte deposition using solution plasma spraying and suspension plasma spraying <b>L. Jia</b> and F. Gitzhofer	599
31C-a4	Thermal plasma directed vapor deposition of Ceramics coatings T. Lavaud, S. Cartel, M. I. Vardelle, G. Mariaux and <b>A. Vardelle</b>	600
Coffee break (11:20–11:40)		
<b>Clusters, particles and powders (11:40–13:00) Chair: Y. Hayashi</b>		Abst. Page
31C-a5	Formation of nanoparticles and nanostructure of tin oxide thin films deposited by PECVD <b>J. Pulpytel</b> , M. Jubault, F. Kaddouri, L. Boufendi and F. Arefi-Khonsari	508
31C-a6	Deposition of nanostructured films by a hybrid of chemical vapor deposition and hypersonic plasma particle deposition A. Beaber, A. Boies, L. Qi, J. Hafiz, P. Mcmurry, W. Gerberich, J. Heberlein and <b>S. Girshick</b>	509
31C-a7	Reaction kinetics for synthesis of gold nanoparticles in solution plasma field <b>J. Hieda</b> , M. Oda, K. H. Lee, N. Saito and O. Takai	510
31C-a8	Thermal plasma synthesis of different SiO nanostructures by the injection of micrometric particles: moving from nanoparticles to nanorods <b>B. Mostajeran Goortani</b> , P. Proulx and F. Gitzhofer	511



**Yoshida Campus: Workshop at Room A****31 (Fri) Afternoon**

Clock Tower 1F		14:00–17:45
<b>Industrial Workshop: Plasma recycling I</b> (14:00–15:30) Chair: <b>Chair: T. Watanabe</b>		Abst. Page
WS-1	Waste destruction and the possibility of recycling in the PLASCON process <b>A. B. Murphy</b>	763
WS-2	Synthesis gas production with the plasma enhanced melter (PEM™) <b>J. Batdorf</b>	764
WS-3	Thermal plasma droplet refining technology and its applications <b>G. Han</b>	765
Break (15:30–15:45)		
<b>Industrial Workshop: Plasma recycling II</b> (15:45–17:15) Chair: <b>Chair: A. Mizuno</b>		Abst. Page
WS-4	Greenhouse gas plasma chemistry - an option for CO <sub>2</sub> control? <b>U. Kogelschatz</b>	766
WS-5	CO <sub>2</sub> reforming of methane via the low temperature plasmas H. Lee, J.-W. Choi, A. Indarto and <b>H. K. Song</b>	767
WS-6	Application of nonthermal plasma to chemical conversion of CO <sub>2</sub> <b>S. Futamura</b>	768
<b>Industrial Workshop: Panel discussion</b> (17:15–17:45) Chair: <b>Chair: T. Watanabe &amp; A. Mizuno</b>		
WS-7	How can we make plasma environmental technologies industrial? <b>All panelists</b>	

## ISPC-18: Cooperative Societies (Alphabetical order)

IEEE Japan Council NPS Plasma

International Innovation Center, Kyoto University

Japan Ozone Association

Materials Science Society of Japan

Society of Geomagnetism and Earth, Planetary and Space Sciences

Spectroscopical Society of Japan

The Ceramic Society of Japan

The Chemical Society of Japan

The Electrochemical Society of Japan

The Institute of Electrical Engineers of Japan

The Institute of Electronics, Information and Communication Engineers

The Institute of Electrostatics Japan

The Iron and Steel Institute of Japan

The Japan Institute of Metals

The Japan Society for Aeronautical and Space Sciences

The Japan Society of Plasma Science and Nuclear Fusion Research

The Physical Society of Japan

The Society of Polymer Science, Japan

The Surface Finishing Society of Japan

The Vacuum Society of Japan

# ISPC-18 Time Schedule

MONDAY, 27 August				TUESDAY, 28 August				WEDNESDAY, 29 August				THURSDAY, 30 August				FRIDAY, 31 August			
Yoshida Campus				Yoshida Campus				Katsuracampus				Yoshida Campus				Yoshida Campus			
9:10	Room A	Room B	Room C	9:10	Room A	Room B	Room C	9:10	Room A	Room B	Room C	9:10	Room A	Room B	Room C	9:10	Room A	Room B	Room C
9:30	Plenary Mark J. Kustner			9:10	Plenary Hana Barankova			9:10	Biomedical	Environment.	Comb. & Aero.	9:10	Plenary François Rossi			9:10	Plenary Javad Mostaghimi		
10:10	Short break			9:50	Short break			9:40	C. W. Chen	T. Ikeda	I. V. Adamovich	9:50	Short break			9:50	Short break		
10:20	Microplasma	Plasma Sources	Dep. Inorganic	10:00	Polymers	Diag. & Model	Spray & Thermal	10:00	L. Xu	G. Soucy	J.-M. Bauchire	10:00	Polymers	Non-eq. Atm.	Surface	10:00	Diag. & Model	Non-eq. Atm.	Spray & Thermal
10:40	J. Winter	W. Stoffels	J. M. A. Diaz	10:20	E. Sardella	S. Girschick	D. Outcalt	10:20	G. Fridman	N. Boudescocque	J. Shin	10:20	M. Perucca	F. Farnelli	T. Ito	10:20	M. Deminsky	B. Ganguly	L. Pershin
11:00	O. Sakai	B. Jacobs	I. Savin de Larcluse	10:40	M. R. Wertheimer	A. Fridman	T. Kavka	10:40	Y. L. M. Creighton	K. Nishikawa	N. Takeuchi	10:40	C. Sarra-Bourret	F. Remiers	R. Zijlmans	10:20	J. Melchner	R. Ye	P. Fauthais
11:20	R. Dussart	M. Ganciu Petcu	E. Debourg	11:00	C. Oehr	M. Sato	K. Shinoda	11:00	Coffee break			10:40	C. Pavan	V. Hopfe	N. Sadeghi	10:40	T. Ueda	X. Duten	L. Jia
	Coffee break			11:20	M. Haidopoulos	K. Nakamura	O. Solonenko	11:20	Polymers	Environment.	Syntheses	11:00	A. Sonnenfeld	M. Iwasaki	E. Desplau-Pujo	11:00	C. Ueda	X. Duten	L. Jia
11:40	Microplasma	Plasma Sources	Dep. Inorganic	11:40	Polymers	Diag. & Model	Spray & Thermal	11:20	G. Ceccone	H. Tong	J. Zheng	11:20	Coffee break			11:20	Coffee break		
12:10	J. Engemann	A. Fridman	T. Ishigaki	11:40	H. Yasuda	G. J. M. Hagelaar	A. Vardelle	11:40	A. Meyer-Plath	K. Badr	Y. Takahashi	11:40	Polymers	Non-eq. Atm.	Surface	11:40	Diag. & Model	Non-eq. Atm.	Cluster
12:30	K. Kitano	Y. Hara	A. Borrás	12:10	A. Milala	S. Nunomura	A. B. Murphy	12:00	R. Mix	A. M. Harling	S. Chavadei	11:40	O. Takai	M. Kong	D. B. Graves	11:40	P. Krenek	J. Yamadera	J. Pulpytel
12:50	A. Rousseau	C. Jarwala	M.C.M. van de Sanden	12:30	K.-D. Neuenburg	J. Ma	S. Takeuchi	12:40	V. Roucoules	S. Futamura	B. Potapkin	12:10	M. Tatoulian	F. Massines	Hamaguchi	12:00	N. Bibnov	E. Filimonova	S. Girschick
13:10	K. Nanno	J. Tavares	M. M. H. Bhuiyan	12:50	J. Hanus	A. Bourig	Y. Tanaka	13:00	M. Kral	M. Okubo	J. Heo	12:30	U. Lommatazsch	G.-J. Zhang	K. Ikuse	12:20	R. Bini	D. H. Lee	J. Hieda
14:10	Lunch			13:10	Lunch			13:10	Lunch			13:10	D. T. Tran	F. Parisi	D. Ruzic	12:40	A. Westermen	C. Wu	B. Mostajeran Goortani
15:30	Poster (Clock Tower 2E Int. Conf. Hall) Dep. Inorganic / Polymers / Biomedical / Environment			14:10	Poster (Clock Tower 2E Int. Conf. Hall) Surface / Non-eq. Atm. / Microplasma / Syntheses / Comb. Aero			14:10	Poster (Clock Tower 2E Int. Conf. Hall) Diag. & Model / Plasma Sources / Electron. & Mech. / Clusters / Spray & Thermal			13:10	Lunch			13:00	Best Paper Awards IPCS General Assembly Announcements of GRC 2008 and ISPC-19 Closing		
16:20	D. Hegemann	K. Ostrikov	K. Kinoshita	15:50	M. Laroussi	J. Vleck	G. Dinescu	15:50	Biomedical	Cluster	Electron. & Mech.	13:20	Closing Reception / Lunch Break before Industrial Workshop			13:20	Closing Reception / Lunch Break before Industrial Workshop		
16:40	S. Voronin	A. Okita	M. Li	16:20	N. Sadeghi	K. Ellmer	H. Huang	16:40	A. Ohi	K. Koga	Y. Ichihashi	14:00	Workshop	A. B. Murphy	14:00	Workshop	A. B. Murphy	14:00	A. B. Murphy
17:00	M. Creatore	S. Nishigaki	D. Benzegouta	16:40	T. Sakurai	S. Grassini	V. Colombo	17:00	Excursion Buses depart from Rohm Plaza at 13:10 (including lunch time)			14:30	J. Batdorf	14:30	J. Batdorf	14:30	J. Batdorf	14:30	J. Batdorf
	Coffee break			17:00	Coffee break			17:00	A. Valsesia	T. Kameko	C. Caridraud	15:00	G. Han	15:00	G. Han	15:00	G. Han	15:00	G. Han
17:20	Surface	Syntheses	Environment.	17:20	Microplasma	Dep. Inorganic	Plasma Sources	17:20	F. Lewis	A. Knitzhnik	G. Vinogradov	15:15	Break	15:15	Break	15:15	Break	15:15	Break
17:40	K. Sasaki	U. Cveibar	J. Kaiser	17:20	J.-L. Dorier	M. Mostaghimi	M. A. Lieberman	17:40	P. Favla	J. Winter	H. Fukumoto	15:45	U. Kogelschatz	15:45	U. Kogelschatz	15:45	U. Kogelschatz	15:45	U. Kogelschatz
18:00	J. F. Friedrich	J. Szépvölgyi	M. Hrabovsky	17:40	F. Iza	N. Ohatake	P. Charbert	18:00	S. Mutlu	P. Rudolf von Rohr	A. Zensari	16:15	H. K. Song	16:15	H. K. Song	16:15	H. K. Song	16:15	H. K. Song
18:20	T. H. Chen	K. Furuya	Y. Chao	18:00	Y. Sakiyama	M. Perucca	J.-M. Pouvesle	18:20	Shuttle buses for Social Dinner depart successively from Clock Tower			16:45	S. Fumamura	16:45	S. Fumamura	16:45	S. Fumamura	16:45	S. Fumamura
18:40	A. Moradian	I. Castillo	S. B. Joa	18:20	B. Farouk	C. P. Lungu	D. Lofthagen	19:00	Social Dinner at Westin Miyako Hotel			17:15	Panel Discussion	17:15	Panel Discussion	17:15	Panel Discussion	17:15	Panel Discussion
	Coffee break			18:40	Coffee break			18:40	Social Dinner at Westin Miyako Hotel			17:45	Panel Discussion						