

Symposium Information

◆ **Date:** December 9(Fri) ~ 11(Sun), 2011

◆ **Symposium Site:** Nagoya University

◆ **Registration Desk:** Noyori Conference Hall (Dec.9)
Integrated Building (Dec.10-11)

◆ **Registration Hours:** Dec.9(Fri) 10:00 ~ 19:00
Dec.10(Sat) 8:00 ~ 19:00
Dec.11(Sun) 8:00 ~ 17:00

◆ **Registration Fee**

	Early Registration (On or before Oct.31,2011)	Regular Registration (After Oct.31, 2011)	On-Site Registration (Dec. 9 - 11)
Regular fee	35,000 yen	40,000 yen	45,000 yen
Student fee	10,000 yen	12,000 yen	15,000 yen

◆ **Payment:** The registration fees are accepted in Japanese yen by cash or credit card. For On-site payment, please notice that the payment in cash is strongly recommended because credit card verification takes more than 5 min at the registration desk.

◆ **Welcome Reception:** Dec.9(Fri) at Noyori Conference Hall in Nagoya University, 5:15pm~

◆ **Symposium Dinner:** Dec.10(Sat) at Romanesque Hall of Nagoya Tokyu Hotel from 6:30 pm to 8:30 pm. Please come to the banquet venue at least 15 minutes before starting.

Symposium Dinner Fee:

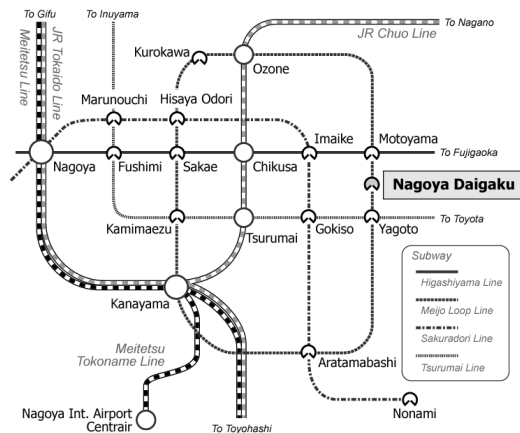
Delegate	Student	Accompanying person
10,500 yen	10,500 yen	10,500 yen

◆ **Detailed Information:** <http://www.esi.nagoya-u.ac.jp/h/isets11/>

Symposium Site Maps

[Transportation Map in Nagoya]

Access to Nagoya University



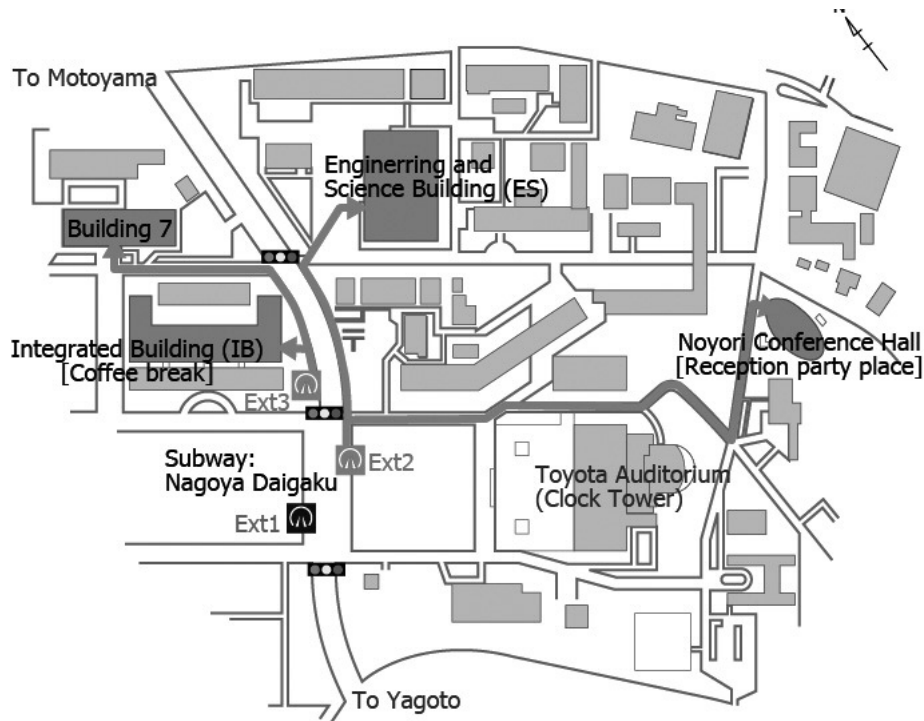
From Nagoya Railway Station : 20 min by subway "Higashiyama Line" to Motoyama Station, then transfer to "Meijo Line" to Nagoya Daigaku Station.

From Centrair (Central Japan International Airport) : 40~60 min by "Meitetsu Line" to Nagoya Station or Kanayama Station (express trains are recommended), then transfer to subway "Meijo Line".

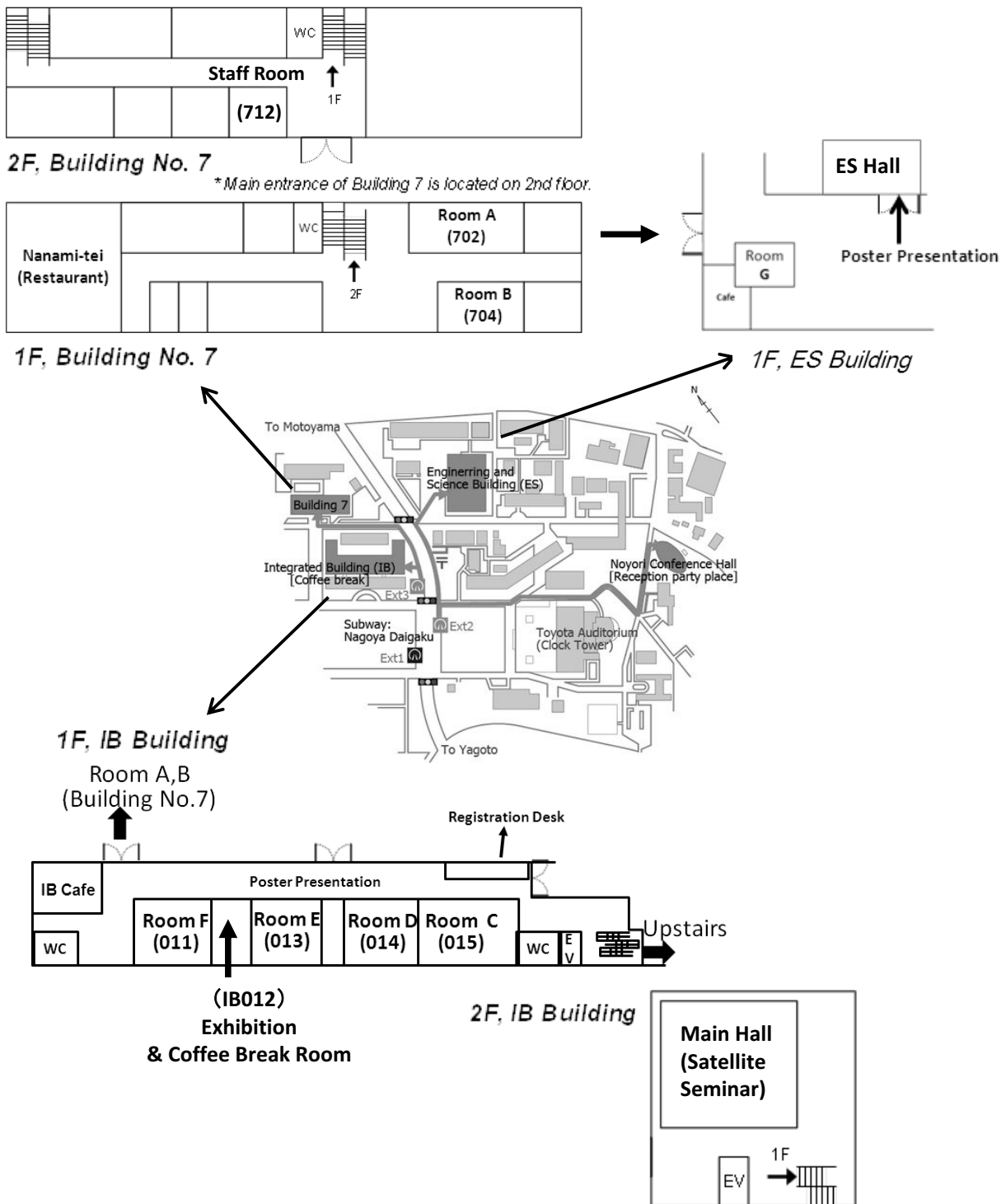
[Access to Nagoya Tokyu Hotel]



[Nagoya University Campus Map]



Floor Plan of Symposium Site



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G. Reader (University of Windsor, Ontario, Canada)

R. Amano (University of Wisconsin, Milwaukee, USA)

Kardono (Agency for the Assessment and Application of Technology (Center for the Assessment and Application of Environmental Technology), Indonesia)

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Sessions

S1. Innovative Materials and Characterization for Nanotechnology, Biotechnology, and Environment

Organizer: T. Yogo

S2. Green Energy Systems and Related Issues

Organizer: K. Kitagawa

S3. Green Production, Recycling and Emission Management

Organizer: R. Ichino

S4. Information and Communication Technologies for Green

Organizer : M. Katayama

S5. Green Vehicle Technology

Organizer : N. Saito

S6. Resource Recovery and Refinery Technologies for Biomass and Biowastes

Organizer : T. Hasegawa

S7. Engineering Cybernetics and Behavioral Science

Organizer : G. Obinata

S8. Energy and Environmental Assessment and Indicators

Organizer : K. Hayashi

Schedule Overview

	Dec. 9 (Fri)	Dec. 10 (Sat)	Dec. 11 (Sun)
9		<p><Building No. 7> Room A : Session 3 Room B : Session 6</p>	<p><IB Building> Room C : Session 2</p>
10		<p><IB Building> Room C : Session 2 Room D : Session 2 Room E : Session 8 Room F : Session 1</p>	<p>Room D : Session 2</p>
11		<p><ES Building> Room G : Session 5</p>	<p>Room E : Session 7</p>
12			<p>Room F : Session 1</p>
13		<p>Lunch & Poster</p>	<p>Lunch & Poster</p>
14		<p><IB Building> Session 1 Session 2 Session 6 Session 8</p>	<p><IB Building> Session 1 Session 2 Session 3 Session 5</p>
15	<p><Noyori Conference Hall> Opening Ceremony</p>	<p><ES Building> Session 3 Session 4 Session 5</p>	
16	<p><Noyori Conference Hall> Plenary Session 1 John Drennan</p>	<p><Building No. 7> Room A : Session 3 Room B : Session 6 Workshop (Session 6)</p>	<p><IB Building> Room D : Session 2</p>
17	<p>Coffee Break</p>	<p><IB Building> Room D : Session 2 Room E : Session 8 Room F : Session 4</p>	<p>Room F : Session 1</p>
18	<p><Noyori Conference Hall> Plenary Session 2 Sukekatsu Ushioda</p>	<p><ES Building> Room G : Session 5</p>	<p><IB Building> Room C Closing Ceremony</p>
19			
20	<p><Noyori Conference Hall> Reception Party</p>		
21		<p><Nagoya Tokyu Hotel> Banquet</p>	

Presentation Instructions

LOCATION AND PRESENTATION TIME:

◆ for Plenary Speakers

Location : Noyori Conference Hall

Date and Time: December 9th (Fri)

Plenary Session 1 14:40-15:40 (60 minutes including discussion)

Plenary Session 2 16:00-17:00 (60 minutes including discussion)

◆ for Invited Speakers and Oral Speakers

Location : IB Building, Building 7 and ES Building.

Date and Time: Please confirm the session date and room of your presentation in the program pages. For each oral presentation, 15 minutes (including discussion) will be available except the following sessions.

*For invited sessions ---30 minutes (including discussion).

Note: The invited sessions of S4, S7 and S8 --- 40 minutes (including discussion)

*Session 7 --- 20 minutes (including discussion)

Speaker ready room is not prepared. Please bring your own PC for your presentation and connect it to the projector before the session. If it is not convenient for you, please contact the session-organizer or any staff on the registration desk. The next speakers are requested to come to the session room at least 5 minutes before the session starts. The Next Speaker's seat is prepared in each session room.

◆ for Poster Presenters

LOCATION AND DISPLAY TIME:

Poster sessions will be located on Level 1 in the IB building and ES Building.

To locate your assigned poster board, find the board marked with your presentation number. Please confirm your presentation number and session in the Program pages. Posters will be on display during the Display Time each day. Materials to attach the posters to the poster boards will be provided.

The Poster presentation schedule is as follows:

Date	Location	Session	Preparation	Presentation	Display
Dec. 10 (Sat)	IB Building	S1,S2,S6,S8	10:30~12:00	12:00~14:00	12:00~16:00
Dec. 10 (Sat)	ES Building	S3,S4,S5	10:30~12:00	12:00~14:00	12:00~16:00
Dec. 11 (Sun)	IB Building	S1,S2,S3,S5	10:30~12:00	12:00~14:00	12:00~16:00

*Please detach your poster by the end of the display time.

During the presentation time, the poster presenters are required to stay in front of the posters for the discussion with the audience.

STYLE SUGGESTIONS:

- (a) The maximum poster size is: 1.5 m (height) x 0.9 m (width).
- (b) Place the title of your presentation at the top of your poster to allow the viewers to identify your presentation easily. The authors' names should also be listed.
- (c) Use large fonts for good readability at a distance of about 2 m. The minimum font size should be 24.
- (d) Highlight the main results and conclusions clearly.
- (e) Use large graphics with thick lines and large markers (dots). Please make sure that the axis labels are clearly visible, legible and intelligible.

THE BEST POSTER PRESENTATION AWARD:

The best poster presentation prizes will be awarded to the outstanding presenters. Awarding ceremony will be held in the closing ceremony of the symposium in Dec.11th.

Plenary Sessions December 9 (Fri), 2011

14:40 ~ 15:40 Plenary Session 1 (Noyori Conference Hall)

John Drennan, University of Queensland, Australia

“From Interfaces to Atoms: The Electron Microscopy of Solid Oxide Fuel Cell Materials”

Abstract: Solid Oxide Fuel Cell technology is developing rapidly; however before major acceptance is realized there still remains the questions of reliability, cost and fuel flexibility. A number of these questions can be addressed by a better understanding of the various microstructures that make up the components and interfaces of the fuel cell and the influence that these microstructure have on the physical and chemical properties of the material. In this presentation we present examples of where an improvement in performance of fuel cell materials has been facilitated by knowledge of the microstructure of the material, down to the atomic scale.

16:00 ~ 17:00 Plenary Session 2 (Noyori Conference Hall)

Sukekatsu Ushioda, National Institute for Materials Science (NIMS), Japan

“Green Innovation Project at NIMS”

Abstract: Technology development for sustainable energy supply is an urgent issue for today's world. The Global Research Center for Environment and Energy based on Nanomaterials Science (GREEN) at NIMS was established specifically to focus on this global issue. GREEN takes advantage of the accumulated knowledge of nanotechnology at NIMS to develop new materials relevant to the energy supply chain, starting from solar energy collection, transmission, and storage to terminal utilization. We employ simulation and theory in combination with advanced analytical techniques to design and create new materials for solar cells, lithium batteries, fuel cells, and photocatalysts. To carry out this project, we are collecting a team of best research staff from all over Japan, and hope to generate a breakthrough in the solution of energy and environment problems.

Oral Program December 10 (Sat), 2011

Session 1		Innovative Materials and Characterization for Nanotechnology, Biotechnology, and Environment	Room F
Dec. 10 (Sat)			
Time	Presentation No.	Title, Author(s)	Abs. P.
Innovative Materials I			
<i>Chairperson : W. Sakamoto (Nagoya University)</i>			
9:00-9:15	10F01-01 (7253)	Effects of Anode Thickness and Microstructure on the Micro SOFC Performances <u>Toshiaki Yamaguchi</u> , Hirofumi Sumi, Toshio Suzuki, Koichi Hamamoto, Yoshinobu Fujishiro (Advanced Manufacturing Research Institute, National Institute of Advanced Industrial Science and Technology)	5
9:15-9:30	10F01-02(7110)	Development of carbon particle dispersed WC-FeAl alloys for mold material of pulsed current sintering <u>Hiroyuki Nakayama</u> , Keizo Kobayashi (National Institute of Advanced Industrial Science and Technology), Kotaro Kikuchi (S S Alloy, Co, Ltd)	6
9:30-9:45	10F01-03(7048)	Impact of microstructure change on powder surface in sintering of Sm₂Fe₁₄N₃ magnets <u>Kenta Takagi</u> , Hiroyuki Nakayama, Kimihiro Ozaki (National Institute of Advanced Industrial Science and Technology (AIST))	7
9:45-10:00	10F01-04(7082)	Thermoelectric properties of Si₂Ti – type Al-Mn-Ru-Si C54-phase <u>Akio Yamamoto</u> (Department of Crystalline Materials Science, Nagoya University), Tsunehiro takeuchi (Department of Crystalline Materials Science, Nagoya University, EcoTopia Science Institute, Nagoya University)	8
10:00-10:15	10F01-05(7139)	High-resolution angle resolved photoemission spectroscopy of FeSb₂ <u>Takafumi Shimada</u> (Department of Applied Physics, Nagoya University), Koto Ogawa, Akio Yamamoto (Department of Crystalline Materials Science, Nagoya University), Tsunehiro Takeuchi (Department of Applied Physics, Nagoya University, Department of Crystalline Materials Science, Nagoya University)	9
10:15-10:30	<i>Coffee Break</i>		
Innovative Materials II			
<i>Chairperson : T. Yogo (Nagoya University)</i>			
10:30-11:00	10F01-06(7117) (Invited)	Novel Applications of DNA in Fields of Environment and Nanomaterials <u>Zinchenko A. A.</u> (Graduate School of Environmental Studies, Nagoya University)	10
11:00-11:15	10F01-07(7070)	Monodispersed Mesoporous Silica Spheres Embedded with Magnetic Nanoparticles <u>Tadashi Nakamura</u> , Mamoru Mizutani, Kazuhisa Yano (Toyota Central R&D Labs., Inc.)	12
11:15-11:30	10F01-08(7107)	Fabrication of Visible Light Responsive ZnO Rod Electrodes Modified with ZnS-AgInS₂ Solid Solution Nanoparticles <u>Tetsuya Sasamura</u> , Ken-ichi Okazaki (Department of Crystalline Materials Science, Graduate School of Engineering, Nagoya University), Akihiko Kudo (Department of Applied Chemistry, Faculty of Science, Tokyo University of Science), Susumu Kuwabata (Department of Applied Chemistry, Graduate School of Engineering, Osaka University, Japan Science and Technology Agency, CREST), Tsukasa Torimoto (Department of Crystalline Materials Science, Graduate School of Engineering, Nagoya University, Japan Science and Technology Agency, CREST)	13
11:30-11:45	10F01-09(7258)	ZnO thin film using electrophoretic deposition method <u>Jun Byungsei</u> (Department of Nano Materials Science and Engineering, Kyungnam University)	14
10:30-10:45	<i>Coffee Break</i>		
12:00-14:00	<i>Lunch, Poster Session</i>		
18:30-20:30	<i>Banquet (Nagoya Tokyu Hotel)</i>		

Session 2

Green Energy Systems and Related Issues

Room C

Dec. 10 (Sat)

Time	Presentation No.	Title, Author(s)	Abs. P.
Green Energy Systems and Related Issues			
<i>Chairperson : I. Naruse (Nagoya University)</i>			
9:15-9:45	10C02-01(7025) (Invited)	Biofuel Production Technologies from Non-Edible Biomass Resources for Their Sustainable Utilization <u>Kinya Sakanishi</u> (Director, Biomass Technology Research Center (BTRC), National Institute of Advanced Industrial Science and Technology (AIST), Chugoku Center)	29
<i>Chairperson : K. Sakanishi (National Institute of Advanced Industrial Science and Technology (AIST))</i>			
9:45-10:00	10C02-02(7020)	Evolution of Syngas from Rice Husk Pyrolysis and Gasification <u>I. I. Ahmed</u> , A. K. Gupta (The Combustion Laboratory, University of Maryland Department of Mechanical Engineering)	30
10:00-10:15	10C02-03(7021)	Advanced Combined Heat and Power System with High Temperature Steam Gasification Technology for Biomass Wastes <u>S. Mochida</u> , T. Abe, T. Yasuda, (Nippon Furnace Kogyo Kaisha Ltd), A. K. Gupta (University of Maryland, Department of Mechanical Engineering)	31
10:15-10:30	10C02-04(7041)	Utilization of RDF from Dumpsite as Alternative Fuel for Power Generation via Gasification Process <u>Krongkaew Laohalidanond</u> , Somphot Cherdphong, Prachaya Kreeso, Somrat Kerdsuwan (Department of Mechanical and Aerospace Engineering, King Mongkut's University of Technology North Bangkok)	32
10:30-10:45	10C02-05(7044)	Thermal Design Program of the Swirl Flow Melting Furnace in MSW Gasification and Melting Systems <u>Teruyuki Okazaki</u> , Tsuyoshi Shibata (Hitachi, Ltd. Hitachi Research Laboratory), Minoru Kobayashi (Hitachi, Ltd. Hitachi Works), Nobuyuki Oshima (Division of Mechanical and Space Engineering, Hokkaido University)	33
10:45-11:00 Coffee Break			
<i>Chairperson : N. Yoshikawa (Nagoya University)</i>			
11:00-11:15	10C02-06(7046)	Contribution of Volatile-char Interactions to Co-gasification of Biomass and Coal <u>J. H. Kihedu</u> , R. Yoshiie (Department of Mechanical Science and Engineering, Nagoya University), Y. Ueki (EcoTopia Science Institute, Nagoya University), I. Naruse (Department of Mechanical Science and Engineering, Nagoya University)	34
11:15-11:30	10C02-07(7051)	Reduction Characteristics of Iron Oxide by Unused Carbonaceous Materials <u>Yasuaki Ueki</u> , (EcoTopia Science Institute, Nagoya University), Atsuo Doi, Ryo Yoshiie, Ichiro Naruse (Department of Mechanical Science and Engineering, Nagoya University)	35
11:30-11:45	10C02-08(7093)	Regeneration characteristics of used Molten Alkali Carbonates (MACs) <u>Slamet Raharjo</u> , Ryo Yoshiie, Ichiro Naruse (Department of Mechanical Science and Engineering, Nagoya University), Yasuaki Ueki (EcoTopia Science Institute, Nagoya University)	36
11:45-12:00	10C02-09(7103)	Co-production of Liquid and Gaseous Fuels from Polyethylene by Employing the Combined Pyrolysis and Catalytic Reforming Process <u>WU Hu</u> , Mochamad Syamsiro, Shuta Komoto, Kunio Yoshikawa (Department of Environmental Science and Technology, Tokyo Institute of Technology)	37
12:00-14:00 Lunch, Poster Session			
18:30-20:30 Banquet (Nagoya Tokyu Hotel)			

Session 2

Green Energy Systems and Related Issues

Room D

Dec. 10 (Sat)

Time	Presentation No.	Title, Author(s)	Abs. P.
Green Energy Systems and Related Issues			
<i>Chairperson : H. Matsuda (Nagoya University)</i>			
11:15-11:30	10D02-01(7179)	Potential of Adsorption Heat Pump for Steam Generation <u>Agung Tri Wijayanta</u> (Research and Education Center of Carbon Resources, Kyushu University) , Erfina Oktariani, Atsushi Noda, Kazuya Nakashima, Bing Xue, Koichi Nakaso, Jun Fukai(Department of Chemical Engineering, Graduate School of Engineering, Kyushu University)	38
11:30-11:45	10D02-02(7283)	LiBr-water absorption heat pump performance using solution/fine crystal slurry <u>N.Ichihashi</u> (Department of Chemical Engineering, Nagoya University), K.Nagatani (Department of Mechanical and Systems Engineering, Gifu University), N.Kobayashi, Y.Tanabe (Department of Chemical Engineering, Nagoya University), Y.Itaya (Department of Mechanical and Systems Engineering, Gifu University)	39
11:45-12:00	10D02-03(7158)	Propagation Process of Impulse Surface Flashover on Alumina Dielectrics in Vacuum <u>Y. Nakano</u> , H. Kojima, N. Hayakawa (Nagoya University), K. Tsuchiya (Hitachi, Ltd.), H. Okubo (Nagoya University)	40
12:00-14:00 Lunch, Poster Session			
<i>Chairperson : K. Kuniyuki (Nagoya University)</i>			
14:00-14:30	10D02-04(7297) (Invited)	Clean Power Production and Role of Renewable Energy <u>Ashwani K. Gupta</u> (University of Maryland)	41
<i>Chairperson : A. K. Gupta (University of Maryland)</i>			
14:30-14:45	10D02-05(7151)	Solidification of MnSi_{1.73} in a magnetic field <u>Tomoya Mitsuo</u> (Graduate School of Engineering, Nagoya University), Kazuhiko Iwai, Takashi Ito (EcoTopia Science Institute, Nagoya University)	43
14:45-15:00	10D02-06(7047)	Visualization of Chemical Species in Plasma to Synthesize Graphitic Anode Materials for Lithium-Ion Battery <u>Qingchun Shen</u> (Department of Applied Chemistry, Graduate School of Engineering, Nagoya University), Yasushi Miyata (Nagoya Municipal Industrial Research Institute), Shigeaki Morita, Kuniyuki Kitagawa (Department of Applied Chemistry, Graduate School of Engineering, Nagoya University EcoTopia Science Institute, Nagoya University)	44
15:00-15:15	10D02-07(7050)	Reduction of ash deposition in pulverized coal fire-d boilers <u>Ichiro Naruse</u> (Department of Mechanical Science and Engineering, Nagoya University), Yasuaki Ueki (EcoTopia Science Institute, Nagoya University), Ryo Yoshiie (Department of Mechanical Science and Engineering, Nagoya University), Hiroshi Naganuma (Technical Development Center, Tohoku Electric Power Engineering & Construction, Co., Ltd.)	45
15:15-15:30	10D02-08(7067)	High Pressure Pure Hydrogen Producing Technique from Water/Alcohol Mixtures under Low- Temperatures <u>Mitsunori Ito</u> , Muneaki Ogawa, Shoji Shimasaki, Haruna Banno, Saeko Miwa, Keisuke Sawada (Team EXIT, Department of Energy Engineering and Science, Nagoya University), Yujiro Niihara, Kiyotomo Terasawa, Yasuhiro Higashijima (Alphasystem Corporation), Seiichi Deguchi (Team EXIT, Department of Energy Engineering and Science, Nagoya University), Norifumi Isu (Kitchen and Bathroom Technology Research Institute, LIXIL Corporation)	46
15:30-15:45 Coffee Break			
<i>Chairperson : A. K. Gupta (University of Maryland)</i>			
15:45-16:00	10D02-09(7094)	Degradation of SOFC Button Cell by Selenium Doped Syngas <u>Ryo Yoshiie</u> , Toshihiro Kobayashi, Akiyuki Oida (Department of Mechanical Science and Engineering, Nagoya University), Yasuaki Ueki (EcoTopia Science Institute, Nagoya University), Ichiro Naruse (Department of Mechanical Science and Engineering, Nagoya University), Koji Kuramoto, Yoshizo Suzuki (National Institute of Advanced Industrial Science and Technology(AIST))	47
16:00-16:15	10D02-10(7066)	Modeling of Photocatalytic Hydrogen Production from Oil/Water Binary Mixtures <u>Haruna Banno</u> , Shoji Shimasaki, Muneaki Ogawa, Mitsunori Ito, Saeko Miwa, Keisuke Sawada, Seiichi Deguchi (Team EXIT, Department of Energy Engineering and Science, Nagoya University), Norifumi Isu (Kitchen and Bathroom Technology Research Institute, LIXIL Corporation)	48

Session 2

Green Energy Systems and Related Issues

Room D

Dec. 10 (Sat)

Time	Presentation No.	Title, Author(s)	Abs. P.
Green Energy Systems and Related Issues			
16:15-16:30	10D02-11(7136)	Photochemical Biofuel Cell with the Function of Formic Acid Production from CO₂ <u>Yutaka Amao</u> (Department of Applied Chemistry, Oita University, JST Precursory Research for Embryonic Science and Technology (PRESTO)), Naho Shuto (Department of Applied Chemistry, Oita University)	49
16:30-16:45	10D02-12(7288)	Lean Combustion Characteristics of Hydrogen-added Preheated Ethanol-Air Flames <u>N. Yoshikawa</u> (Graduated school of Engineering, Nagoya University)	50
18:30-20:30	<i>Banquet (Nagoya Tokyu Hotel)</i>		

Session 3

Green Production, Recycling and Emission Management

Room A

Dec. 10 (Sat)

Time	Presentation No.	Title, Author(s)	Abs. P.
Management			
<i>Chairperson : H. Itoh (Toho Gas Co.,Ltd.)</i>			
9:00-9:15	10A03-01(7006)	The Missing Link in Solid Waste Management in Nairobi City, Kenya <u>F.O. Chwanya</u> (Graduate School of Environmental Studies, Nagoya University), V. S. Muhandiki (Graduate School of Engineering, Nagoya University)	71
9:15-9:30	10A03-02(7008)	3Rs Approach for Improvement of Municipal Solid Waste Management in Bandung City, Indonesia <u>Muhammad Haikal</u> (Graduate School of Environmental Studies, Nagoya University), Victor S. Muhandiki (Graduate School of Engineering, Nagoya University), Tomoko Okayama (EcoTopia Science Institute, Nagoya University), Joko P. Susanto (Agency for the Assessment and Application of Technology(BPPT))	72
9:30-9:45	10A03-03(7005)	A Preliminary Study on Measuring Economic Benefits of Waste Bank Initiatives: The Case of Koperasi Warga Mandiri (KWM) Delima in Jakarta, Indonesia <u>Renny Nurhasana</u> (Graduate School of Environmental Studies, Nagoya University), Aulia Fitriani (Lemahabang Health Training Center, Ministry of Health, Indonesia), Victor Muhandiki (Graduate School of Engineering, Nagoya University), Tomoko Okayama (EcoTopia Science Institute, Nagoya University)	73
9:45-10:00	10A03-04(7262)	Evaluating the "Biomass Town Scheme": A comparative study of food waste recycling policy in Nagoya and Sapporo <u>Tomoko Okayama</u> (EcoTopia Science Institute, Nagoya University), Kenzi Suzuki (Department of Applied Chemistry, Graduate School of Engineering, Nagoya University)	74
10:00-10:15	<i>Coffee Break</i>		
Environment (1)			
<i>Chairperson : H. J. Kim (Niigata University)</i>			
10:15-10:30	10A03-05(7190)	The SO₂ removal method of a sulfuric acid process exhausts gas <u>Jianjun Li</u> , Xin Li, Huaqiang Yin, Yueli Li (Sichuan University)	75
10:30-10:45	10A03-06(7282)	The effect of coexistence gas on dry-desulfurization performance by activated cokes <u>Yuichi Tsutsumi</u> , Nobusuke Kobayashi, Yasuhiro Tanabe (Department of Chemical Engineering, Nagoya University), Yoshinori Itaya (Department of Mechanical Engineering, Gifu University)	76
10:45-11:00	10A03-07(7022)	Removal of NO_x by a Reactor of Pulsed Corona Combined with Alkali Absorption <u>Liwei Huang</u> , Yongxia Dang, Sheng Jin (College of Biological and Environmental Engineering, Zhejiang University of Technology), Hitoki Matsuda (Department of Energy Engineering and Science, Nagoya University)	77
11:00-11:15	10A03-08(7185)	Non-Catalytic Decomposition Performance of NO by Atmospheric Pressure Microwave Plasma Induced by Activated Cokes Bed <u>T. Hiramatsu</u> , N. Kobayashi, Y. Tanabe (Department of Chemical Engineering, Nagoya University), Y. Itaya (Department of Mechanical and Systems Engineering, Gifu University)	78
11:15-11:30	10A03-09(7146)	Design of A Large Scale PSA Method in Analysis Aiming at Carbon Dioxide Separation in Consideration of Temperature Change <u>Hideaki Kuronuma</u> , Noriyuki Kobayashi (Department of Chemical Engineering, Nagoya University), Hitoshi Saima (JFE Steel Corporation)	79
11:30-11:45	10A03-10(7161)	Evaluation of CO₂ Absorption and Inhibition of Leaching of High pH Solution by Carbonation of Steelmaking Slag <u>Shunsuke Matsui</u> , Naoto Tsutsumi (Nippon Steel Corporation, R&E Center)	80
11:45-12:00	10A03-11(7294)	Decarburization inhibition mechanism and performance of a bauxite based coating for spring steel <u>X. Wang</u> (Institute of Process Engineering, Chinese Academy of Sciences, Graduate University of Chinese Academy of Sciences), S. Ye, Y. Chen (Institute of Process Engineering, Chinese Academy of Sciences)	81
12:00-14:00	<i>Lunch, Poster Session</i>		

Session 3

Green Production, Recycling and Emission Management

Room A

Dec. 10 (Sat)

Time	Presentation No.	Title, Author(s)	Abs. P.
Environment (2)			
<i>Chairperson : H. Matsumiya (Nagoya University)</i>			
14:00-14:15	10A03-12(7147)	Production of Biodiesel from Crude Palm Oil and Jatropha Oil using Microwave Technique <u>S.Abu Bakar</u> , S.Yusup, M.M.Ahmad (Department of Chemical Engineering, Universiti Teknologi PETRONAS), G.Motonobu, A.T.Quatain (Department of Applied Chemistry and Biochemistry, Kumamoto University)	82
14:15-14:30	10A03-13(7072)	Tetradecane Reforming Using Surface Oxidized SUS304 as Catalyst <u>SR.de la Rama</u> , S.Kawai, H.Yamada, T.Tagawa (Department of Chemical Engineering, Nagoya University)	83
14:30-14:45	10A03-14(7097)	Enrichment of 4-chlorophenol-Degrading culture under both iron-reducing and sulfate-reducing conditions <u>Zhiling Li</u> , Suyin Yang, Daisuke Suzuki (EcoTopia Science Institute, Nagoya University), Arata Katayama (EcoTopia Science Institute, Nagoya University, Department of Civil Engineering, Graduate School of Engineering, Nagoya University)	84
14:45-15:00	10A03-15(7101)	Field Study of Natural Attenuation of Groundwater Contaminated with Volatile Organic Compounds in River Sediment <u>Tivany Edwin</u> (Graduate school of Engineering, Nagoya University), Yasushi Inoue (Graduate school of Environmental Studies), Toyoko Demachi (Ecotopia Science Institute, Nagoya University), Suzuki Isaki (Graduate school of Engineering, Nagoya University), Arata Katayama (Graduate school of Engineering, Graduate School of Environmental Studies, Ecotopia Science Institute, Nagoya University), Kiyotoshi Asahi, Toshio Horibe (Environmental Affairs Bureau of Nagoya City), Takahisa Mase, Masami Kamada (DOWA Eco-System Co. Ltd)	85
15:00-15:15	10A03-16(7130)	On-Site Detection Method for Arsenate by a Spot Test Y. Kamimoto (EcoTopia Science Institute, Nagoya University), S.Tanimoto (Department of Environmental and Life Science, Toyohashi University of Technology), K. Niki (Japan Education Center Environmental Sanitation), Y. Kiso (Department of Environmental and Life Science, Toyohashi University of Technology), R. Ichino (EcoTopia Science Institute, Nagoya University)	86
15:15-15:30	<i>Coffee Break</i>		
Recovery & Separation			
<i>Chairperson : R. Ichino (Nagoya University)</i>			
15:30-16:00	10A03-17(7265) (Invited)	Recovery of hazardous/precious elements from polluted wastewater by hydrothermal mineralization process <u>Hideaki ITOH</u> (EcoTopia Science Institute, Nagoya University)	87
16:00-16:15	10A03-18(7273)	Removal of Uranium from Waste Catalyst by Extraction with Supercritical Carbon Dioxide after Chlorination Treatment <u>Kayo Sawada</u> (EcoTopia Science Institute), Daisuke Hirabayashi, Youichi Enokida (Department of Materials, Physics and Energy Engineering, Nagoya University)	88
16:15-16:30	10A03-19(7065)	Recovery of phosphorus from incineration ash of waste biomass <u>Takuro Abiko</u> , Tadaaki Shimizu, Hee Joon Kim (Department of Chemistry and Chemical Engineering, Niigata University), Yuki Kamimoto (Environmental Systems and Recycling Science Research Department, EcoTopia Science Institute, Nagoya University)	89
16:30-16:45	10A03-20(7124)	Selective recovery of indium from wastes by pyrometallurgical process utilizing ammoniumchloride as chlorination reagent <u>Osamu Terakado</u> , Masahiro Hirasawa (Department of Materials Science and Engineering, Graduate School of Engineering, Nagoya University)	90
16:45-17:00	10A03-21(7213)	Physical Phenomena Identification of Jig Separation Process in Continuous Reactor <u>Alin Adlina</u> , Benno Rahardyan (Department of Environmental Engineering, Bandung Institute of Technology)	91
18:30-20:30	<i>Banquet (Nagoya Tokyu Hotel)</i>		

Session 4

Information and Communication Technologies for Green

Room F

Dec. 10 (Sat)

12:00-14:00 *Lunch, Poster Session*

Time	Presentation No.	Title, Author(s)	Abs. P.
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Chairperson : M. Katayama (Nagoya University)

14:00-14:40	10F04-01(7298) (Invited)	SMART WIRELESS UTILITY NETWORKS FOR FUTURE GREEN SOCIETIES <u>Hiroshi Harada</u> (Smart Wireless Laboratory, NICT)	93
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14:40-15:20	10F04-02(7075) (Invited)	Information and Communication Technologies for Smarter Cities <u>F. J. Cañete</u> (Department of Communication Engineering, University of Málaga)	97
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15:20-15:35	10F04-03(7195)	XBee Array : Direction-of-Arrival Estimator for Low Power Localization System <u>Yuichi Murakami</u> (Graduate School of Systems and Information Engineering, Tsukuba University), <u>Masatoshi Hamanaka</u> (PRESTO, Japan Science and Technology Agency, Graduate School of Systems and Information Engineering, Tsukuba University)	101
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15:35-15:50	10F04-04(7135)	A Data Collection Protocol for Wireless Sensor Networks Powered by Ambient Energy Harvesting <u>Masaya Yoshida</u> (Graduate School of Informatics, Shizuoka University), <u>Takashi Watanabe</u> (Graduate School of Science and Technology, Shizuoka University)	102
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15:50-16:00 *Break*

16:00-16:15	10F04-05(7209)	An Optimal Sleeping Time for Pseudo-Synchronization Protocol in Energy Harvesting Wireless Sensor Networks <u>KAWAI Yusuke</u> , <u>WATANABE Takashi</u> (Faculty of Informatics, Shizuoka University)	103
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16:15-16:30	10F04-06(7091)	Performance Evaluation of Transmission Methods in MIMO Mesh Networks <u>Hironori KUSUMOTO</u> (Department of Electrical and Electronic Engineering and Information Engineering, Nagoya University), <u>Hiraku OKADA</u> , <u>Kentaro KOBAYASHI</u> , <u>Masaaki KATAYAMA</u> (EcoTopia Science Institute, Nagoya University)	104
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16:30-16:45	10F04-07(7140)	A Study on Joint Multi-Route and Random Network Coding in Wireless Multihop Networks <u>Yuki Sugao</u> (Department of Electrical and Electronic Engineering and Information Engineering, Nagoya University), <u>Hiraku Okada</u> , <u>Kentaro Kobayashi</u> , <u>Masaaki Katayama</u> (EcoTopia Science Institute, Nagoya University)	105
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16:45-17:00	10F04-08(7162)	Relay Selection Scheme Using Prediction of Harvested Energy for Solar-Powered Wireless Sensor Networks <u>Kentaro Ota</u> (Graduate School of Engineering, Nagoya University), <u>Kentaro Kobayashi</u> (Eco Topia Science Institute, Nagoya University), <u>Takaya Yamazato</u> (Institute of Liberal Arts Sciences, Nagoya University), <u>Masaaki Katayama</u> (Eco Topia Science Institute, Nagoya University)	106
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18:30-20:30 *Banquet (Nagoya Tokyu Hotel)*

Session 5

Green Vehicle Technology

Room G

Dec. 10 (Sat)

Time	Presentation No.	Title, Author(s)	Abs. P.
<i>Chairperson : N. Saito (Nagoya University)</i>			
9:30-10:00	10G05-01(7007) (Invited)	Fabrication of A Metallic Sandwich Panel with Pyramidal Lattice Truss Core and Its Mechanical Performance <u>Sang-Woo Kim</u> , Young-Seon Lee (Materials Deformation Group, Korea Institute of Materials Science), Beom-soo Kang (Dept. of Aerospace Engineering, Pusan National University)	107
10:00-10:30	10G05-02(7015) (Invited)	FE model to predict failure and thickness distribution of deformed part on deep drawing of multilayered sheet <u>Youngseon Lee</u> (Department of Materials Processing, Korea Institute of Materials Science), T. Ishikawa (Dept. of Materials Sciences and Engineering, Nagoya University)	109
10:30-10:45	10G05-03(7243)	Enhanced Room Temperature Formability of Mg Alloy Sheets by Dilute Ce Addition in Mg-Zn <u>Yasumasa Chino</u> , Xinsheng Huang, Kazutaka Suzuki (National Institute of Advanced Industrial Science and Technology), Mamoru Mabuchi (Kyoto University)	111
10:45-11:00	10G05-04(7098)	Silicon Nitride Ceramics with High Thermal Conductivity and Good Mechanical Properties <u>Y. Zhou</u> , H. Hyuga, Y. Yoshizawa, K. Hirao (National Institute of Advanced Industrial Science and Technology (AIST))	112
12:00-14:00 Lunch, Poster Session			
<i>Chairperson : K. Ishikawa (Nagoya University)</i>			
14:00-14:30	10G05-05(7032) (Invited)	Liquid and Solid Forming Process for Metallic Bipolar Plate in Fuel Cell and Evaluation by using Nanoindentation <u>C.G. Kang</u> (Engineering Research Center for Net Shape and Die Manufacturing, School of Mechanical Engineering, Pusan National University), C.K. Jin (Precision Manufacturing System Division, Graduate School, Pusan National University)	113
14:30-14:45	10G05-06(7246)	Possibility of Silicon Carbide as a Photocatalyst Material for Hydrogen Generation <u>Masashi Kato</u> , Tomonari Yasuda, Masaya Ichimura (Nagoya Institute of Technology)	115
14:45-15:00	10G05-07(7286)	Thermoelectric properties of MgAlB₁₄ based materials with impurity addition: Cu, Ni, Al, Mg, Si, C. <u>Hikaru Sasaki</u> (Department of Mechanical Engineering, Graduate School of Engineering, Tokyo City University), Shota Miura, Ken-ichi Takagi, Fujima Takuya (Department of Mechanical Engineering, Faculty of Engineering, Tokyo City University)	116
<i>Chairperson : T. Ujihara (Nagoya University)</i>			
15:00-15:30	10G05-08(7079) (Invited)	Simulation of Firing Process of Metallic Hollow Sphere Compacts <u>Kazunari Shinagawa</u> (Faculty of Engineering, Kagawa University)	117
15:30-15:45	10G05-09(7000)	Mathematical Modeling for the Regeneration of Diesel Particulate Filter (DPF) <u>N. C. Roy</u> , Y. Nakamura (Division of Mechanical and Space Engineering, Hokkaido University)	119
15:45-16:00	10G05-10(7040)	Cavitating flow in a large-scale transparent multi-hole diesel injector nozzle and its effect on spray characteristics for water, diesel and biodiesel <u>Zhixia He</u> , Wenjun Zhong, Qian Wang, Yunlong Huang, Hengsong Ji (School of Energy and Power Engineering, Jiangsu University)	120
<i>Chairperson : T. Fujisawa (Nagoya University)</i>			
16:00-16:30	10G05-11(7295) (Invited)	Biology Enabled Nanotechnology: Biomolecular Approaches in Materials Assembly <u>Candan Tamerler</u> (Genetically Engineered Material Science & Engineering Center Materials Science & Engineering, University of Washington)	121
16:30-16:45	10G05-12(7116)	Effect of Surrounding Chemistry on the Size of Gold Nanoparticles Synthesized in Solution Plasma <u>Maria Antoaneta Bratescu</u> , Nagahiro Saito (Ecotopia Science Institute), Osamu Takai (Ecotopia Science Institute, Graduate School of Engineering)	122
16:45-17:00	10G05-13(7205)	New Approach of Energy Crisis: Cellulose as a Potential Energy Resource <u>O.L.Li</u> (EcoTopia Research Institute, Nagoya University), N. Saito, O. Takai (EcoTopia Research Institute, Nagoya University, Faculty of Engineering, Nagoya University)	123
17:00-17:15	10G05-14(7104)	Estimation of longevity for remediation of Oil-Contaminated Soil by Natural Attenuation <u>Arata Katayama</u> (EcoTopia Science Institute, Nagoya University), Mitsuru Kitamura (Graduate School of Engineering, Nagoya University), Dejun Song (Kiso-Jiban Consultants Co. Ltd.)	124

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Session 5

Green Vehicle Technology

Room G

Dec. 10 (Sat)

Time	Presentation No.	Title, Author(s)	Abs. P.
<i>Chairperson : N. Zettsu (Nagoya University)</i>			
17:15-17:30	10G05-15(7270)	Voltage Control using Electrical Storage and Advanced SVR for Smart Community <i>Shinya Sekizak, Mustumi Aoki, Hiroyuki Ukai (Nagoya Institute of Technology)</i>	125
17:30-17:45	10G05-16(7271)	Loop Power Flow Controller using Matrix Converter for Smart Community <i>Mustumi Aoki, Tadashi Hattori, Hiroyuki Ukai (Nagoya Institute of Technology)</i>	126
18:30-20:30	<i>Banquet (Nagoya Tokyu Hotel)</i>		

Session 6

Resource Recovery and Refinery Technologies for Biomass and Biowastes

Room B

Dec. 10 (Sat)

Time	Presentation No.	Title, Author(s)	Abs. P.
<i>Chairperson : T. Hasegawa (Nagoya University)</i>			
9:30-10:00	10B06-01(7125) (Invited)	The Importance of Methane Fermentation for the Prevention of Global Warming -Current Status of Methane Fermentation in Japan- <u>Tatsuya Noike</u> (Advanced Research Institute for the Science and Humanities, Nihon-University)	127
10:00-10:30	10B06-02(7301) (Invited)	Desired Policies for Harnessing Bio-methanation Technology for Biogas and Bio-fertilizer Production for Eco-friendly Disposal of Wet Biomass Wastes <u>A. R. Shukla</u> (Ministry of New and Renewable Energy)	129
10:30-11:00	10B06-03(7300) (Invited)	Is biomass energy promising? - Potential and perspectives in Thailand - <u>Joseph Khedari</u> (Rattanaksoin College For Sustainable Energy and Environment(RCSEE) Rajmangala University of Technology Rattanakosin)	131
<i>Chairperson : T. Noike (Advanced Research Institute for the Science and Humanities, Nihon-University)</i>			
11:00-11:15	10B06-04(7013)	Rapid Analysis of Bacterial and Archaeal Lipid Biomarkers during Methane Fermentation Process by Supercritical Fluid Extraction <u>Muhammad Hanif</u> (Department of Environmental and Life Science, Toyohashi University of Technology, Agency for the Assessment and Application of Technology), Yoichi Atsuta, Hiroyuki Daimon (Department of Environmental and Life Science, Toyohashi University of Technology)	133
11:15-11:30	10B06-05(7189)	Decentralized Compact Biogas Energy System for Rural Development <u>Hisae Takeuchi</u> , <u>Tatsuya Hasegawa</u> (Center for Interdisciplinary Studies on Resource Recovery and Refinery in Asia, EcoTopia Science Institute, Nagoya University)	134
11:30-11:45	10B06-06(7058)	Development of an Energy Generation System Using Syrup Waste from a Canning Factory <u>S.Sakai</u> (Shizuoka Industrial Research Institute of Shizuoka Prefecture), <u>K.Sugimoto</u> (Yamanashi Kanzume Co., Ltd.), <u>N.Masuda</u> (Watanabe Building Co., Ltd.), <u>M.Mochizuki</u> (Yamanashi Kanzume Co., Ltd.)	135
11:45-12:00	10B06-07(7129)	Acceleration of Aerobic Degradation of Lignocellulosic Residues through Hydrothermal Treatment for Organic Fertilizer Production <u>B.Nakhshiniev</u> , <u>T.Makino</u> , <u>K.Yoshikawa</u> (Department of Environmental Science and Technology, Tokyo Institute of Technology)	136
12:00-14:00	<i>Lunch, Poster Session</i>		
<i>Chairperson : A. R. Shukla (Ministry of New and Renewable Energy)</i>			
14:00-14:15	10B06-08(7023)	Fast Pyrolysis behaviors of Large Seaweed <u>Shuang Wang</u> (School of Energy and Power Engineering, Jiangsu University, Institute of Thermal Energy Engineering, School of Mechanical Engineering, Shanghai Jiao Tong University), <u>Qian Wang</u> (School of Energy and Power Engineering, Jiangsu University), <u>Yiru Huang</u> , <u>Xiumin Jiang</u> (Institute of Thermal Energy Engineering, School of Mechanical Engineering, Shanghai Jiao Tong University)	137
14:15-14:30	10B06-9(7055)	Conversion of sulfuric acid lignin generated during bioethanol production from lignocellulosic materials into polyesters with ϵ-caprolactone <u>Yasuyuki Matsushita</u> , <u>Toyoki Inomata</u> (Graduate School of Bioagricultural Sciences, Nagoya University), <u>Yasuo Takagi</u> (Nagoya Municipal Industrial Research Institute), <u>Tatsuya Hasegawa</u> (EcoTopia Science Institute, Nagoya University), <u>Kazuhiko Fukushima</u> (Graduate School of Bioagricultural Sciences, Nagoya University)	138
14:30-14:45	10B06-10(7114)	Change of devolatilization characteristics in wood pellet due to steam explosion pretreatment <u>Amit Kumar Biswas</u> , <u>Weihong Yang</u> , <u>Wlodzimirz Blasiak</u> (Division of Energy and Furnace Technology, Department of Materials Science and Engineering, Royal Institute of Technology (KTH))	139
14:45-15:00	10B06-11(7111)	Experimental research on biomass pyrolysis by TG-DTA/MS analysis <u>Yang Li</u> , <u>Ning Zhu</u> (Department of mechanical Engineering, Shizuoka Institute of Science and Technology), <u>QianWang</u> (School of Energy and Power Engineering, Jiangsu University)	140
15:00-15:15	10B06-12(7196)	Effect of Direct Injection of Woody Biomass on Iron-based Oxygen Carrier in Chemical Looping Process <u>S.Morita</u> , <u>N.Kobayashi</u> , <u>Y.Tanabe</u> (Department of Chemical Engineering, Nagoya University), <u>Y.Itaya</u> (Department of Mechanical and Systems Engineering, Gifu University)	141
15:15-15:30	10B06-13(7302)	Green Solvent Processing for Production of Nutraceuticals from Citrus Fruit Wastes <u>Motonobu Goto</u> , <u>Siti Machmudah</u> (Bioelectrics Research Center, Kumamoto University), <u>Armando T. Quitain</u> , <u>Mitsuru Sasaki</u> (Graduate School of Science and Technology, Kumamoto University), <u>Masahiro Tanaka</u> (ASCII Co. Ltd.), <u>Ryuichi Fukuzato</u> (4SCF Techno-Link, Inc.)	142

Oral Program December 10 (Sat), 2011

Session 6

Resource Recovery and Refinery Technologies for Biomass and Biowastes

Room B

Dec. 10 (Sat)

15:30-17:00

CISRA Workshop

Chairperson : T. Hasegawa (Nagoya University)

Panelists : A. R. Shukla, Joseph Khedari, Hisae Takeuchi, Tatsuya Noike

15:30-16:30

Report on each country's endeavors to create sustainable society or point out problems in detail

Questions and answers

16:30-17:00

Discussion on "What are common problems in Asia and how to cooperate and solve problems together?"

18:30-20:30

Banquet (Nagoya Tokyu Hotel)

Session 8

Energy and Environmental Assessment and Indicators

Room E

Dec. 10 (Sat)

Time	Presentation No.	Title, Author(s)	Abs. P.
Biodiversity and Ecosystem Services			
<i>Chairperson : A. Hibiki, (National Institute of Environmental Studies)</i>			
10:30-11:10	10E08-01(7292) (Invited)	Sharing Genetic Resources for Non-plant Research: Actors, Paths, and Consequences <u>Eric W. Welch</u> , Eun Jung Shin (Science, Technology and Environment Policy Lab, Department of Public Administration, University of Illinois)	151
11:10-11:25	10E08-02(7166)	Evaluation of Forest Ecosystem Services in the Kushida River Basin Using a Process-Based Ecological Model <u>Makoto Ooba</u> , Tsuyoshi Fujita, Motoyuki Mizuochi (National Institute for Environmental Studies), Hirokazu Kato, Takuya Togawa, Masato Miyata (Graduate School of Environmental Studies, Nagoya University)	152
11:25-11:40	10E08-03(7063)	A Study on Priority of Benefits Arising from Utilization of Genetic Resources in Access and Benefit-Sharing issues in Japan <u>K. HAYASHI</u> (EcoTopia Science Institute, Nagoya University)	153
11:40-11:55	10E08-04(7149)	Practical Application of Australian Biodiversity Banking Unit Measuring Systems in the Nagoya University Higashiyama Campus, Nagoya, Japan <u>Kartik Malhotra</u> (Graduate School of Engineering, Nagoya University), Kiichiro Hayashi (EcoTopia Science Institute, Nagoya University)	154
12:00-14:00 Lunch, Poster Session			
Environmental Economics and Policies			
<i>Chairperson : Eric Welch (Science, Technology and Environment Policy Lab, Department of Public Administration, University of Illinois)</i>			
14:00-14:15	10E08-05(7156)	Indication of Sustainable Development for Green Innovation <u>Kuniko Urashima</u> (National Institute of Science and Technology Policy (NISTEP), Ecotopia Science Institute, Nagoya University), Oi Lun Li, Nagahiro Saito, Osamu Takai (Ecotopia Science Institute, Nagoya University)	155
14:15-14:30	10E08-06(7193)	Comparison of the Effect of RPS and FIT on Renewable Energy Diffusion <u>Y. Kurakawa</u> (Graduate School of Social Engineering, Tokyo Institute of Technology, Social and Environmental Systems Division, National Institute for Environmental Studies)	156
14:30-14:45	10E08-07(7153)	Impact analysis of environmental tax on aviation market in Japan ~Based on monopolistic competition theory ~ <u>Aoto MIMURO</u> (Graduate School of Environmental Studies, Nagoya University), Takaaki OKUDA (EcoTopia Science Institute, Nagoya University)	157
14:45-15:00	10E08-08(7016)	Economic and Environmental Implications on Energy Sector (Two Areas in Greater Mekong Sub-regions: Myanmar and Thailand) <u>C.M. Lwin</u> (Department of Civil Engineering, Nagoya University), J. Han, H. Shirakawa, H. Tanikawa (Graduate School of Environmental Studies, Nagoya University)	158
15:00-15:15	10E08-09(7155)	Study of Cost-Benefit Analysis on Biodiversity Banking -Case Study on Hypothetical Vernal Pool Banks in California, USA- <u>Shenghua HU</u> (Graduate School of Engineering, Nagoya University), Kiichiro HAYASHI, Hideyuki ITO (EcoTopia Science Institute, Nagoya University), Takahiro OTA (Graduate School of Engineering, Nagoya University)	159
15:15-15:30 Coffee Break			
LCA and Indicators			
<i>Chairperson : Minoru Fujii (National Institute for Environmental Studies)</i>			
15:30-15:45	10E08-10(7211)	Impact of the Diffusion of Wood Stoves on Ecological Footprint: A Case Study in a rural/suburban area of Japan <u>Katsura Nakano</u> (Department of Economics, Shiga University), Yoshihiko Wada (Department of Economics, Doshisha University), Mitsuhiro Nose (Research Institute for Humanity and Nature), Naozumi Terao (Lake Biwa Museum)	160
15:45-16:00	10E08-11(7105)	Evaluation of Remediation Technologies for a Contaminated Site by Applying Economic Input-Output Life Cycle Assessment <u>Yasushi Inoue</u> , Iwao Sakaguchi, Arata Katayama (EcoTopia Science Institute, Nagoya University)	161

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Session 8

Energy and Environmental Assessment and Indicators

Room E

Dec. 10 (Sat)

Time	Presentation No.	Title, Author(s)	Abs. P.
16:00-16:15	10E08-12(7115)	From Consumption to Occupancy, Shift of an Indicator to measure sustainability <u>M. Fujii</u> (National Institute for Environmental Studies)	162
16:15-16:30	10E08-13(7123)	Material Flow Analysis of Household Electronic Appliances Waste in Indonesia <u>P. Andarani</u> , N. Goto (Department of Environmental and Life Science, Toyohashi University of Technology)	163
16:30-16:45	10E08-14(7080)	Study on Assessment of Impacts on Ecosystem Services -Case Study of Wooden House and Steel Framed House- <u>Hideyuki ITO</u> , Kiichiro HAYASHI (EcoTopia Science Institute, Nagoya University)	164
16:45-17:00	10E08-15(7277)	Sustainable Cement Production of Cement Industry in Indonesia by Using Material Flow Analysis <u>N. Ulhasanah</u> , N. Goto (Department of Environmental and Life Science, Toyohashi University of Technology)	165
18:30-20:30		<i>Banquet (Nagoya Tokyu Hotel)</i>	

Poster Program December 10 (Sat), 2011

Session 1 Innovative Materials and Characterization for Nanotechnology, Biotechnology, and Environment **1st Floor IB Building**

Dec. 10 (Sat)

12:00-14:00 **Poster Session**

Presentation No.	Title, Author(s)	Abs. P.
10P01-01(7002)	Ceramic catalyst using rare earth containing nanoparticle, OSC components and substrate Masakuni Ozawa, Masaaki Haneda (Ceramics Research Laboratory, Nagoya Institute of Technology)	167
10P01-02(7003)	Synthesis and catalytic properties of platinum nanoparticles by aqueous solution process Kei Fujimoto, Masaaki Haneda, Masakuni Ozawa (Ceramics Research Laboratory, Nagoya Institute of Technology)	168
10P01-03(7012)	Oxygen storage capacity and oxygen isotope exchange of rare earth modified CeO₂ and CeO₂-ZrO₂ nanoparticles Masatomo Hattori (Ecotopia Science Institute, Nagoya University), Nicolas Bion, Daniel Duprez (Laboratory of Catalysis in Organic Chemistry, University of Poitiers), Takeshi Kimura, Masaaki Haneda, Masakuni Ozawa (Ceramics Research Laboratory, Nagoya Institute of Technology)	139
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10P05-25(7261)	Interface Analysis of Lithium-Ion Rechargeable Batteries Materials T. Ishizaki (National Institute of Advanced Industrial Science And Technology (AIST)), Y. Mizuno, H. Inagaki, S. Oishi (Department of Environmental Science and Technology, Faculty of Engineering, Shinshu University), K. Kohama (Toyota Motor Corporation), K. Teshima (Department of Environmental Science and Technology, Faculty of Engineering, Shinshu University)	291
10P05-26(7231)	Novel Flux Coating Method of High-Quality LiCoO_2 Crystal Layers for Lithium Ion Rechargeable Batteries Yusuke Mizuno, Katsuya Teshima, Hikaru Inagaki (Department of Environmental Science and Technology, Faculty of Engineering, Shinshu University), Takuya Sakaguchi, Keiichi Kohama (Toyota Motor Corporation), Takahiro Ishizaki (National Institute of Advanced Industrial Science and Technology, Materials Research Institute for Sustainable Development), Shuji Oishi (Department of Environmental Science and Technology, Faculty of Engineering, Shinshu University)	292
10P05-27(7232)	Environmentally Friendly Flux Growth of Well-Developed $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ Crystals for Solid Electrolyte of All-Crystal-State Lithium Ion Rechargeable Batteries Yusuke Mizuno, Satoshi Endo, Katsuya Teshima, Shuji Oishi (Department of Environmental Science and Technology, Faculty of Engineering, Shinshu University)	293
10P05-28(7233)	Flux Growth and Electrochemical Properties of Idiomorphic $\text{Li}_4\text{Ti}_5\text{O}_{12}$ Crystals Yusuke Mizuno, Katsuya Teshima, Hikaru Inagaki, Shuji Oishi (Department of Environmental Science and Technology, Faculty of Engineering, Shinshu University)	294
10P05-29(7235)	Energy Conversion Properties of Photofuel Cells Using Allophane-Dispersing Titania Electrodes Hiromasa Nishikiori, Masaaki Itoh, Katsuya Teshima (Department of Environmental Science and Technology, Faculty of Engineering, Shinshu University)	295
10P05-30(7234)	Photoelectric Conversion Properties of Dye-Sensitized Solar Cells Using Titania Electrodes Coated with Dye-Dispersing Titania Hiromasa Nishikiori, Rudi Agus Setiawan, Yohei Uesugi, Shohei Takami, Katsuya Teshima (Department of Environmental Science and Technology, Faculty of Engineering, Shinshu University)	296
10P05-31(7236)	Control of Conduction Band Potential and Photoelectric Conversion Properties of Dye-Dispersing Titania Rudi Agus Setiawan, Hiromasa Nishikiori, Nobuaki Tanaka, Katsuya Teshima, Tsuneo Fujii (Interdisciplinary Graduate School of Science and Technology, Shinshu University)	297
10P05-32(7255)	Effect of Lattice Oxygen Contents on Thermal Conductivities of Silicon Nitride Ceramics K. Hirao, Y. Zhou, H. Hyuga (National Institute of Advanced Industrial Science and Technology (AIST)), Y. Yoshizawa (National Institute of Advanced Industrial Science and Technology (AIST), Japan Fine Ceramics Co., Ltd.)	298
10P05-33(7248)	Observation of deep levels in p-type 4H-SiC induced by low-energy electron irradiation K. Yoshihara, M. Kato, M. Ichimura (Nagoya Institute of Technology)	299

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Presentation No.	Title, Author(s)	Abs. P.
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10P05-35(7249)	Improvement of forward characteristics for n-type 4H-SiC Schottky diode using passivation of defects by anodic oxidation. <u>M. Kimura</u> , M. Kato, M. Ichimura (Nagoya Institute of Technology)	301
10P05-36(7247)	Carrier Lifetime Measurement for Observation of Defects in 3C- and 4H-SiC <u>Masashi Kato</u> , Atsushi Yoshida, Masaya Ichimura (Nagoya Institute of Technology)	302
10P05-37(7192)	Formation of Different Polytypes during 4H-SiC Solution Growth <u>Shunta Harada</u> (Department of Materials Science and Engineering, Nagoya University), Alexander, Kazuaki Seki (Department of Crystalline Materials Science, Nagoya University), Yuji Yamamoto, Toru Ujihara (Department of Materials Science and Engineering, Nagoya University), Jun Yamasaki, Nobuo Tanaka (EcoTopia Science Institute, Nagoya University)	303
10P05-38(7269)	Discover of nanoscale pits at leakage current sources of 4H-SiC Schottky barrier diodes by atomic force microscope <u>Takashi Katsuno</u> , Tsuyoshi Ishikawa, Yukihiko Watanabe (Toyota Central R&D Labs. Inc.), Hirokazu Fujiwara (Toyota Motor Corporation), Tomoo Morino (Research Laboratories, DENSO CORPORATION)	304
10P05-39(7293)	Analyses of surface band bending in GaN using Hard X-ray Photoelectron Spectroscopy <u>Tetsuo Narita</u> , Daigo Kakuta, Naoko Takahashi, Keita Kataoka, Yasuji Kimoto, Tsutomu Uesugi, Tetsu Kachi (Toyota Central R&D Labs. Inc.)	305
10P05-40(7263)	Critical density of nanoscale pits for suppressing variability in leakage current of SiC Schottky barrier diodes <u>Tsuyoshi Ishikawa</u> , Takashi Katsun, Yukihiko Watanabe (Toyota Central R&D Laboratory, Inc.), Hirokazu Fujiwara (Toyota Motor Corporation), Tomoo Morino (DENSO CORPORATION)	306
10P05-41(7296)	Dissociation of basal plane dislocations in 4H-SiC under electron beam irradiation observed by electron beam induced current and KOH+Na₂O₂ etching <u>Yong-Zhao Yao</u> , Yoshihiro Sugawara, Yukari Ishikawa (Japan Fine Ceramics Center), Katsunori Danno, Hiroaki Saitoh, Hiroshi Suzuki, Takeshi Bessyo, Yoichiro Kawai (Toyota Motor Corporation)	307
10P05-42(7251)	Transmission loss of self-resonant type magnetic-coupled resonant wireless power transfer <u>Hiroshi Hirayama</u> , Tohomiro Amano, Nobuyoshi Kikuma, Kunio Sakakibara (Department of Computer Science and Engineering, Nagoya Institute of Technology)	308
10P05-43(7206)	Behavior of Specific Water on Polyelectrolyte Brush. <u>Yoshie Aoki</u> (Graduate School of Engineering, Nagoya University), Tomonaga Ueno, Nobuyuki Zettsu (Graduate School of Engineering, Nagoya University, Green Mobility Collaborative Research Center, Nagoya University), Takuya Fujima (Faculty of Engineering, Tokyo City University), Nagahiro Saito (Graduate School of Engineering, Nagoya University, Green Mobility Collaborative Research Center, Nagoya University, EcoTopia Science Research Institute, Nagoya University)	309

Session 6

Resource Recovery and Refinery Technologies for Biomass and Biowastes

1st Floor IB Building

Dec. 10 (Sat)

12:00-14:00

Poster Session

Presentation No.	Title, Author(s)	Abs. P.
10P06-01(7034)	Study on Carbonization of Coffee Grounds K.Kikuchi, R.Yamashita, S.Sakuragawa (Shizuoka Industrial Research Institute of Shizuoka Prefecture), Y.Katayama (San Yuki Kenkyusho Ltd.), Y.Sato (The University of Tokyo)	317
10P06-02(7035)	Manufacture of Fuel Pellets using Coffee Grounds as Raw Material S.Sakuragawa, R.Yamashita, K.Kikuchi (Shizuoka Industrial Research Institute of Shizuoka Prefecture), A.Ikegaya (Shizuoka Yuka Kogyo Co., Ltd.)	318
10P06-03(7039)	Biodiesel Fuel(BDF) Synthesis by Indirection Ultrasonic Irradiation based on Ion-exchange Resin Ning Zhu, Jyun Yamazaki, Wengang Li (Department of Mechanical Engineering, Shizuoka Institute of Science and Technology), Aiping Shi (Jingsu University)	319
10P06-04(7073)	Steam Gasification of Biomass for Hydrogen-Rich Gas in an Inductive-heating Reactor H.S.Ji, Q.Wang, S.Cheng (School of Energy and Power Engineering, Jiangsu University)	320
10P06-05(7202)	Hydrothermal Extraction of Polysaccharide from <i>Porphyra yezoensis</i> (Susabinori) and Antioxidant Analysis Chinami Goto (Graduate School of Science and Technology, Kumamoto University), Siti Machmudah (Bioelectronics Research Center, Kumamoto University), Armando T. Quitain, Mitsuru Sasaki (Graduate School of Science and Technology, Kumamoto University), Motonobu Goto (Bioelectronics Research Center, Kumamoto University), Kiyoka Okai (Department of Food and Nutritional Environment, College of Human Life Environment, Kinjo Gakuin University), Yasuji Okai (Department of Human Life Science, Osaka Kun-Ei Women's College), Shoji Kondo (Tsuohonori Co.)	321
10P06-06(7221)	Enhanced Methane Production from Rice Husk, Rice Straw and Wheat Straw Lignocellulosic Agricultural Wastes Biomass T. Takahashi, R. Chandra, T. Hasegawa, H. Takeuchi (Center for Interdisciplinary Studies on Resource Recovery & Refinery in Asia, EcoTopia Science Institute, Nagoya University)	322

Session 8 Energy and Environmental Assessment and Indicators

1st Floor IB Building

Dec. 10 (Sat)

12:00-14:00 **Poster Session**

Presentation No.	Title, Author(s)	Abs. P.
10P08-01(7157)	Environmental Evaluation of D-T and D-³He Fusion Reactors T. Kondo, K. Yamazaki, T. Oishi, H. Arimoto, T. Shoji (Department of Energy Engineering and Science, Nagoya University)	323
10P08-02(7159)	Analysis of Energy Payback Ratio of Fusion Reactors Kanae Ban, Kozo Yamazaki, Hideki Arimoto, Tetsutarou Oishi, Tatsuo Shoji (Nagoya University)	324
10P08-03(7174)	Reduction of artificial environmental load by way of regulation and changes in the environment for proliferation of algae Chika Suzuki (Evaluation and Support Organization for Young Researchers, Kochi University, Graduate School of Environmental Studies, Nagoya University(Part-time Lecturer)), Masao Yukumoto (Graduate School of Engineering, Chubu University), Ryoichi Ichino (EcoTopia Science Institute, Nagoya University)	325

Oral Program December 11 (Sun), 2011

Session 1

Innovative Materials and Characterization for Nanotechnology, Biotechnology, and Environment

Room F

Dec. 11 (Sun)

Time	Presentation No.	Title, Author(s)	Abs. P.
Innovative Materials III			
<i>Chairperson : M. Kusunoki (Nagoya University)</i>			
10:00-10:30	11F01-01(7219) (Invited)	Atomistic mechanism of graphene formation as predicted by nonequilibrium quantum chemical molecular dynamics simulations <u>Stephan Irlc</u> , Ying Wang, Yoshio Nishimoto, Hu-Jun Qian (Department of Chemistry, Nagoya University), Masato Morita, Wataru Norimatsu, Michiko Kusunoki (Ecotopia, Nagoya University), Alister J. Page, Keiji Morokuma (Fukui Institute for Fundamental Chemistry, Kyoto University)	15
10:30-10:45	11F01-02(7134)	In-situ Environmental Transmission Electron Microscope study of platinum electrode catalysts for Proton Exchange Membrane Fuel Cells <u>K. Yoshida</u> (Nanostructures Research Laboratory, Japan Fine Ceramics Center, The York JEOL Nanocentre, University of York, Ecotopia Science Institute, Nagoya University), A. N. Bright (FEI Company Japan), X. Zhang, S. Arai (Ecotopia Science Institute, Nagoya University), K. Saitoh (FEI Company Japan), N. Tanaka (Nanostructures Research Laboratory, Japan Fine Ceramics Center, Ecotopia Science Institute, Nagoya University)	17
10:45-11:00	11F01-03(7150)	Quantitative Estimation of Fine Precipitates in Ferritic Steel Using XAFS and TEM <u>Y. Tanaka</u> , K. Yamada, M. Nagoshi, K. Sato (Steel Research Laboratory, JFE Steel Corporation)	18
11:00-11:15	11F01-04(7289)	Microscopic characterizations of innovative magnetic materials by means of in-situ Lorentz microscopy and small-angle electron diffraction <u>Y. Togawa</u> (Nanoscience and Nanotechnology Research Center, Osaka Prefecture University, Japan Science and Technology Agency (JST), CREST), T. Koyama, K. Harada (Department of Materials Science, Osaka Prefecture University), S. Mori (Japan Science and Technology Agency (JST), CREST Department of Materials Science, Osaka Prefecture University)	19
11:15-11:30	11F01-05(7109)	Endocytic mechanism on drug delivery using transferrin-conjugated submicron particles <u>T. Tsuji</u> , H. Yoshitomi, J. Usukura (Department of Materials, Physics and Energy Engineering, Graduate school of Engineering, Nagoya University)	20
11:30-11:45	11F01-06(7122)	Calcium Phosphate Forming Ability of Iron and Its Oxides in Simulated Body Fluid <u>Chikara Ohtsuki</u> , Yasuyuki Kato, Taishi Yokoi, Ill Yong Kim, Eui Sup Shin (Graduate School of Engineering, Nagoya University), Masakazu Kawashita (Graduate School of Biomedical Engineering, Tohoku University)	21
Lunch, Poster Session			
Innovative Materials and Characterization			
<i>Chairperson : N. Tanaka (Nagoya University)</i>			
14:00-14:30	11F01-07(7299) (Invited)	SWCNT THIN FILMS FOR FLEXIBLE ELECTRONICS APPLICATIONS <u>Esko I. Kauppinen</u> (Department of Applied Physics, Aalto University School of Science, Puumiehenkuja 2)	22
14:30-14:45	11F01-08(7018)	In situ Off-Axis Electron Holography and Gas-Solid Reactions at Oxide-Metal Interfaces <u>Amir Hossein Tavabi</u> (Graduate School of Engineering, Nagoya University), Takayoshi Tanji (Eco-Topia Science Institute, Nagoya University)	24
14:45-15:00	11F01-09(7092)	Atomic Level Investigation of Lithium-Ion Battery Material LiCoO₂ <u>C. A. J. Fisher</u> , S. Zheng (Nanostructures Research Laboratory, Japan Fine Ceramics Center), R. Huang (Key Laboratory of Polar Materials and Devices, East China Normal University), H. Moriwake, A. Kuwabara, Y. H. Ikuhara (Nanostructures Research Laboratory, Japan Fine Ceramics Center), H. Oki (Battery Research Division, Toyota Motor Corporation), Y. Ikuhara (Nanostructures Research Laboratory, Japan Fine Ceramics Center, Institute of Engineering Innovation, The University of Tokyo)	25
15:00-15:15	11F01-10(7226)	Structure studies of Al-Ni -Ru decagonal quasicrystal by convergent-beam electron diffraction and high-angle annular dark field scanning transmission electron microscopy <u>D. Yokoyama</u> (Department of Crystalline Materials Science, Nagoya University), K. Saitoh, N. Tanaka (EcoTopia Science Institute, Nagoya University), H. Takakura (Graduate school of Engineering, Hokkaido University)	26
15:15-15:30	11F01-11(7228)	Atomic Arrangement at 3C-SiC/Si(001) Interface Revealed by Aberration-Corrected Transmission Electron Microscopy and a New Image Processing Method <u>J. Yamasaki</u> (EcoTopia Science Institute, Nagoya University), S. Inamoto, H. Tamaki (Department of Crystalline Materials Science, Nagoya University), N. Tanaka (EcoTopia Science Institute, Nagoya University)	27
15:30-16:00	<i>Closing Ceremony (Room C, 1B Building)</i>		

Session 2

Green Energy Systems and Related Issues

Room C

Dec. 11 (Sun)

Time	Presentation No.	Title, Author(s)	Abs. P.
Green Energy Systems and Related Issues			
<i>Chairperson : K. Laohalidanond (King Mongkut's University of Technology North Bankok)</i>			
9:00-9:30	11C02-01(7164) (Invited)	Development of High Efficiency Solar Lighting and Heat System by Using Refractor Type Concentrators <u>Sang Chun LEE</u> , Ki-Ho KIM (Department of Nano-Science & Engineering, Kyungnam University), Hyunkook PARK (Department of Nano-Semiconductor Engineering, Korea Maritime University), Kuniyuki Kitagawa (Ecotopia Science Institute, Nagoya University)	51
<i>Chairperson : L. Sangchun(Kyungnam University)</i>			
9:30-9:45	11C02-02(7178)	A Study on Maximum Fluctuation Width within a few Hours regarding Ensemble Average Insolation Observed at Multi-points in Large Area <u>Shinsuke Kumazawa</u> , Takeyoshi Kato, Yasuo Suzuoki (Dept. of Electrical Eng. and Comp. Sci., Grad. School of Eng, Nagoya University), Nobuyuki Honda, Masakazu Koaizawa, Shinichi Nishino (Electric Power Research & Development Center, Chubu Electric Power Co., Inc.)	52
9:45-10:00	11C02-03(7220)	Enhancing the Thermal Performance of a Solar Cabinet Dryer with Special Design of Preheating Air and Flow Arrangement <u>Woranuch Jangsawang</u> (Sustainable Energy Research Center, Department of Mechanical Technology, Faculty of Industrial Technology, Phranakhon Rajabhat University)	53
10:00-10:15	11C02-04(7120)	A study on Forecast of Ensemble average Insolation in Utility service area <u>Kouki Suzuki</u> , Takeyoshi Kato, Yazuo Suzuoki (Dept. of Electrical Eng. and Comp. Sci., Grad. School of Eng., Nagoya University)	54
10:15-10:30	11C02-05(7112)	A STUDY ON PRACTICAL ENERGY CONSERVATION OF RESIDENTIAL PHOTOVOLTAIC POWER GENERATION SYSTEM DEPENDING ON INHABITATION AREAS <u>Toshifumi Imamura</u> , Takeyoshi Kato, Yasuo Suzuoki (Dept. of Electrical Eng. and Comp. Sci., Grad. School of Eng)	55
10:30-10:45	<i>Coffee Break</i>		
<i>Chairperson : N. Oshima (Hokkaido University)</i>			
10:45-11:00	11C02-06(7201)	4D-CT Measurement of a Turbulent Premixed Flame by Simultaneous Multi-Directional High-Speed Photography with Multi-Mirror Optical Capture System <u>Yojiro Ishino</u> , Yuya Okita, Yu Saiki, Tahiro Mizokami (Department of Mechanical Engineering, Nagoya Institute of Technology)	56
11:00-11:15	11C02-07(7187)	An Attempt to Visualize Instantaneous Preheat Zone of Very-lean Premixed Flames via Acetone-OH Simultaneous PLIF Method <u>Yuji Nakamura</u> , Yuichiro Yamada (Division of Mechanical and Space Engineering, Hokkaido University), Mitsutomo Hirota, Tsutomu Saito (Muroran Institute of Technology)	57
11:15-11:30	11C02-08(7014)	Evaluation of a Fractal Dynamic SGS Combustion Model in High Reynolds Number Turbulent Premixed Flames <u>I. Yoshikawa</u> , Y.-S. Shim, M. Tanahashi, T. Miyauchi (Department of Mechanical and Aerospace Engineering, Tokyo Institute of Technology)	58
11:30-11:45	11C02-09(7074)	The influence of deformed flame-shape driven strong negative velocity on flame dynamics <u>Hossain A.</u> , Oshima N, Nakamura Y (Division of Mechanical and Space Engineering, Hokkaido University), Oshima M (Institute of Industrial Science, The University of Tokyo)	59
12:00-14:00	<i>Lunch, Poster Session</i>		
15:30-16:00	<i>Closing Ceremony (Room C, IB Building)</i>		

Session 2

Green Energy Systems and Related Issues

Room D

Dec. 11 (Sun)

Time	Presentation No.	Title, Author(s)	Abs. P.
<i>Chairperson : K. Kuniyuki (Nagoya University)</i>			
10:00-10:30	11D02-01(7029) (Invited)	The Chemistry of Hydrothermal Biomass Conversion <u>Andrea Kruse</u> (Karlsruhe Institute of Technology, Institute for Catalysis Research and Technology)	60
Green Energy Systems and Related Issues			
<i>Chairperson : A. Kruse (Karlsruhe Institute of Technology, Institute for Catalysis Research and Technology)</i>			
10:30-10:45	11D02-02(7218)	Effect of Yeast Growing by Aqueous Phase of Wet Oxidation Treatment of Yeast <u>Y. Yamashita</u> (Department of Mechanical System Engineering, Hiroshima University), M. Kanna, T. Yanagida, Y. Matsumura (Division of Energy and Environmental Engineering, Hiroshima University), T. Minowa (Biomass Technology Research Center, National Institute of Advanced Industrial Science and Technology)	62
10:45-11:00	11D02-03(7217)	Difference between the effect of acid and base catalysts on supercritical water gasification of glucose <u>Hokuto Takai</u> , Chutinan Promdej (Department of Mechanical Science and Engineering, Hiroshima University), Yukihiko Matsumura (Division of Energy and Environmental Engineering, Hiroshima University)	63
11:00-11:15	11D02-04(7214)	Hydrolysis Pre-treatment of Spruce for Thermal Application <u>C. A. Cuvilas</u> (Department of Materials Science and Engineering, Royal Institute of Technology), W. Yang (Department of Chemical Engineering, University Eduardo Mondlane (UEM))	64
11:15-11:30	11D02-05(7188)	On-line mass spectrometric analysis of volatile sulfur compounds from Durian (<i>Durio zibethinus</i>) during hydrothermal reaction <u>Matlal Fajri Alif</u> (Department of Applied Chemistry, Graduate School of Engineering, Nagoya University), Matsumoto Kozo, Kuniyuki Kitagawa (EcoTopia Science Institute, Nagoya University)	65
11:30-11:45	11D02-06(7145)	Solution of Environmental Issues Originated by Chicken Manure <u>Sevgihan Yildiz Bircan</u> , Naruse Ichiro (Department of Mechanical Science and Engineering, Graduate School of Engineering, Nagoya University), Kazuo Ohba (Nagoya City Institute for Environmental Sciences), Kozo Matsumoto, Kuniyuki Kitagawa (Eco Topia Science Institute, Nagoya University)	66
11:45-12:00	11D02-07(7037)	Biodiesel production from <i>Jatropha</i> oil having high content of free fatty acids (FFA) <u>T.K. Jayasinghe</u> , P.sungwornpatansakul, Y.Nigahara, K.Yoshikawa (Department of Environmental Science and Technology, Tokyo Institute of Technology)	67
12:00-14:00	<i>Lunch, Poster session</i>		
<i>Chairperson : T. Itoh (Nagoya University)</i>			
14:00-14:15	11D02-08(7102)	Proposal and Numerical Verification of High-Performance Thermoelectric System using Fluorinert on Lower-Temperature Side <u>Muneaki Ogawa</u> , Keisuke Sawada, Shoji Shimasaki, Haruna Banno, Mitsunori Ito, Saeko Miwa (Team EXIT, Department of Energy Engineering and Science, Nagoya University), Kenji Sakai, Kentaro Kimoto (Toshima Manufacturing Co.,Ltd.), Seiichi Deguchi (Team EXIT, Department of Energy Engineering and Science, Nagoya University), Norifumi Isu (Kitchen and Bathroom Technology Research Institute, LIXIL Corporation)	68
14:15-14:30	11D02-09(7208)	Dynamic Behavior of Magnetically Anisotropic Crystal under a Magnetic Field <u>Kazuhiko Iwai</u> (Eco-Topia Institute, Nagoya University)	69
14:30-14:45	11D02-10(7062)	Proposal and Cold-Model Feasibility Study of New Piezoelectric Power Generating Process from Low-Temperature Waste Heats induced by Vapor Pressure in Airtight Chamber <u>Shoji Shimasaki</u> , Haruna Banno, Muneaki Ogawa, Mitsunori Ito (Team EXIT, Department of Energy Engineering and Science, Nagoya University), Tsuyoshi Inoue, Kentaro Takagi (Department of Mechanical Science and Engineering, Nagoya University), Takashi Nozoe, S Saito, T Sano (FUJI CERAMICS CORPORATION), Seiichi Deguchi (Team EXIT, Department of Energy Engineering and Science, Nagoya University), Norifumi Isu (Kitchen and Bathroom Technology Research Institute, LIXIL Corporation)	70
15:30-16:00	<i>Closing Ceremony (Room C, IB Building)</i>		

Session 7

Engineering Cybernetics and Behavioral Science

Room E

Dec. 11 (Sun)

Time	Presentation No.	Title, Author(s)	Abs. P.
<i>Chairperson : G. Obinata (EcoTopia Science Institute, Nagoya University)</i>			
9:40-10:20	11E07-01(7274) (Invited)	Intelligent Driver Assisting System development for commercial vehicles in Europe –trends and tendencies <u>Laszlo PALKOVICS</u> (Knorr Bremse Research and Development Institute)	143
10:20-11:00	11E07-02(7260) (Invited)	Designing Sociable Creatures for Symbiotic Relations with Human <u>Michio Okada</u> (Department of Computer Science and Engineering, Toyohashi University of Technology)	146
11:00-11:20	11E07-03(7099)	Design of training robot for autistic children's adjustability on touching force <u>Jaeryoung Lee</u> (Graduate School of Engineering, Nagoya University), <u>Hiroki Takehashi</u> (EcoTopia Science Institute), <u>Chikara Nagai</u> (Graduate School of Engineering, Nagoya University), <u>Goro Obinata</u> (EcoTopia Science Institute)	148
11:20-11:40	11E07-04(7127)	Bilateral Transfer in Active and Passive Guidance-reproduction of Arm Reaching Movement: Effect of Proprioception and Handedness <u>Keunyoung Park</u> (Department of Mechanical Science and Engineering, Nagoya University), <u>Youngwoo Kim</u> (EcoTopia Science Institute, Nagoya University), <u>Chikara Nagai</u> (Department of Mechanical Science and Engineering, Nagoya University), <u>Goro Obinata</u> (EcoTopia Science Institute, Nagoya University)	149
11:40-12:00	11E07-05(7184)	Frequency Characteristics of Eye Movements Related To Mental Workload <u>Satoru Tokuda</u> (Department of Micro-Nano Systems Engineering, Nagoya University), <u>Goro Obinata</u> (EcoTopia Science Institute, Nagoya University), <u>Evan Palmer</u> , <u>Alex Chaparro</u> (Wichita State University)	150
12:00-14:00	<i>Lunch, Poster Session</i>		
15:30-16:00	<i>Closing Ceremony (Room C, IB Building)</i>		

Poster Program December 11 (Sun), 2011

Session 1 Innovative Materials and Characterization for Nanotechnology, Biotechnology, and Environment **1st Floor IB Building**
Dec. 11 (Sun)

12:00-14:00 **Poster Session**

Presentation No.	Title, Author(s)	Abs. P.
11P01-01(7223)	Synthesis of High-density Vertically Aligned Carbon Nanotubes Using Ultrasonic Nebulizer Jianhui Zhang (EcoTopia Science Institute, Nagoya University, Global Research Center for Environment and Energy based on Nanomaterials Science), Wei Li (Graduate School of Engineering), Takayoshi Tanji (EcoTopia Science Institute, Nagoya University, Global Research Center for Environment and Energy based on Nanomaterials Science)	200
11P01-02(7225)	Image Processing with Electron Holography for Phase Imperfections Wei Li (Graduate School of Engineering, Nagoya University), Jianhui Zhang, Takayoshi Tanji (EcoTopia Science Institute, Nagoya University)	201
11P01-03(7252)	Production and observation of electron vortex beams using grating masks with dislocations Y. Hasegawa, K. Hirakawa (Department of Crystalline Materials Science, Nagoya University), K. Saitoh (EcoTopia Science Institute, Nagoya University), M. Uchida (Instrument and Research Technology Center, Nagoya Institute of Technology), N. Tanaka (EcoTopia Science Institute, Nagoya University)	202
11P01-04(7019)	In situ Studies of the Solid Oxide Fuel Cell, $Gd_{0.2}Ce_{0.8}O_{2-x}$, Operation Mechanism Amir Hossein Tavabi (Graduate School of Engineering, Nagoya University), Takayoshi Tanji (Eco-Topia Science Institute, Nagoya University)	203
11P01-05(7033)	Phase Shift Measurement by an Optical Fiber Array Detector in the STEM Takafumi Ishida, Tetsuji Kodama (Department of Electrical and Electronic Engineering, Faculty of Science and Technology, Meijo University), Tadahiro Kawasaki (Department of Electrical Engineering and Computer Science, Graduate School of Engineering, Nagoya University), Keiko Ogai (APCO Ltd.), Takashi Ikuta (Department of Electrical and Electronic Engineering, Faculty of Engineering, Osaka Electro-Communication University)	204
11P01-06(7069)	Visualizing of magnetic flux quanta pinned at insulating particles in bulk Y-Ba-Cu-O super conductor by electron holography Z. Akase, D. Shindo (Institute of Multidisciplinary Research for Advanced Materials, Tohoku University), H. Kasai, S. Mamishin (Okinawa Institute of Science and Technology), M. Morita (Advanced Technology Research Laboratories, Nippon Steel Corporation), A. Tonomura (Okinawa Institute of Science and Technology, Funding program for world leading innovative R&D on science and technology)	205
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Additional Information

The site for the symposium is Nagoya University. Located in the geometrically central district of Japan, Nagoya City is world-famous for various industries of advanced ceramics, aerospace, automobiles etc., and also known for its historic sites such as "Three Great Shoguns" and beautiful castles. The symposium attendants can fully enjoy historical sites, museums and downtown before and/or after the ISETS '11 symposium. The tourism convention desk will be available at the conference desk. The climate in the Nagoya area in December is characterized by average temperatures ranging from +5 °C (41 °F) to +13 °C (55 °F) with some possibility of rain.



Nagoya University can be easily accessed from the Central Japan International Airport "Centrair" by train (Meitetsu Line, Central Japan International Airport - Kanayama, about 25 min) and subway (Meijo Line, Kanayama - Nagoya Daigaku, about 20 min). Integrated Building of Nagoya University is just beside the subway exit No. 3 (within 1 min by walking). Please refer to the maps below for the details.

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