

Joint Symposia

**THE 1ST INNOVATION FORUM OF ADVANCED ENGINEERING
EDUCATION
(IFAE, iΦ)**

– New Frontiers in Advanced Engineering –

**THE 21ST INTERNATIONAL SPACC SYMPOSIUM
(SPACC)**

– Innovative Applications of Coordination Compounds –

October 31 to November 3, 2014

Shinjuku, Tokyo, Japan

Organized by

Kogakuin University

and

The Society of Pure and Applied Coordination Chemistry



Welcome Letter

Welcome to Kogakuin University (Tokyo Urban Tech)!

It is my pleasure to welcome you to the Joint symposia of the 1st IFAEE (iΦ, Innovation Forum of Advanced Engineering and Education) and the 21st International SPACC (The Society of Pure and Applied Coordination Chemistry) Symposium at Kogakuin University (Tokyo Urban Tech). The main theme of the IFAEE and international SPACC symposium will be "New frontiers in Advanced Engineering" and "Innovative Applications of Coordination Compounds", respectively.

The school of advanced engineering will be established from the April, 2015 in Kogakuin University. This School includes departments of chemistry and life science, applied chemistry, environmental chemistry and chemical engineering, applied physics, and mechanical science and engineering. The IFAEE is expected to be one of the opportunities to discuss and create new frontiers in advanced engineering, since the flexible and technological combination between each field is demanded for realizing novel innovative technology.

As with previous SPACC Symposia, it is intended that this Symposium will provide a platform for young scientists to exchange scientific information among themselves and with the selected leading scientists. This challenging symposium began in Tokyo just 20 years ago by the SPACC fellow Prof. Yano, and has been held annually and consecutively in the world. It is our great pleasure to hold this 21st Symposium in the first venue.

It is our special honor and forever memorable that the Nobel laureate Prof. Ei-ichi Negishi participates in this epoch-making Joint Symposia. I would like to take this opportunity to express my sincere appreciation to all those involved to make this Joint symposia possible, including the symposia organizers: Kogakuin university and SPACC, all the presenters, the invited speakers, the panelists, and the International Advisory and Organizing Committee. I would also thank to the financial supports from many companies.

Finally, I hope that all participants enjoy the Joint symposia and take full opportunity to explore the beautiful city of Tokyo.



*Mitsunobu Sato
Chairperson of IFAEE1 and SPACC21
Kogakuin University*

Advisory and Organizing Committee

Honorary Chairperson:

Akisato Mizuno President of Kogakuin University

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Ken Tokunaga Kogakuin University

| | |
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| Nobuhiro Aburai | Kogakuin University |
| Takeyoshi Onuma | Tokyo National College of Technology |
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| Hiroki Nagai | Kogakuin University as the Secretary |

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| | |
|---------------------|--|
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Correspondence

If you have any inquiry, you can contact with the general secretary via e-mails in the URL.

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E-mail: spacc21-gs@spacc.gr.jp

General Information

Registration (Invite Only)

Location: Faculty Club (8F)

Hour: Oct. 31 (Fri.) 16:30 – 17:30

Registration fee

| Registration Type | | Early-Bird Fee* (Deadline: July 31) | Regular Fee (at symposium site) |
|------------------------------|---------|--|------------------------------------|
| Member | General | ¥25,000 | ¥30,000 |
| (Including Symposium dinner) | Student | ¥12,000 | ¥15,000 |
| Non-member | General | ¥50,000 | ¥60,000 |
| (Including Symposium dinner) | Student | ¥25,000 | ¥30,000 |
| Member | General | ¥16,000 | ¥21,000 |
| | Student | ¥3,000 | ¥6,000 |
| Non-member | General | ¥41,000 | ¥51,000 |
| | Student | ¥16,000 | ¥21,000 |

The refund policy for cancellations is as follows:

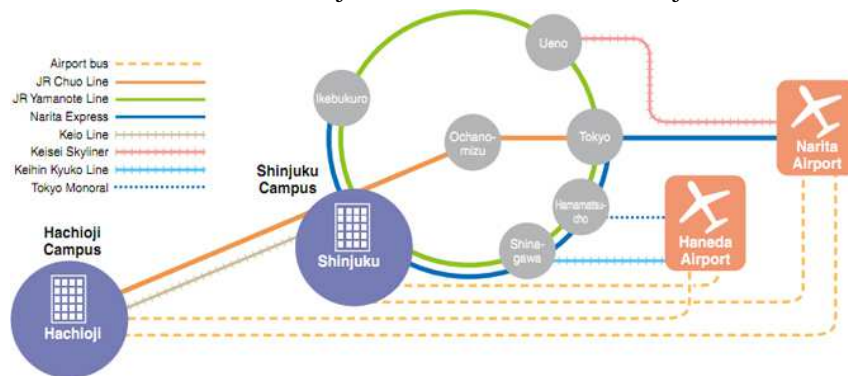
- For cancellations received on or before September 30, 2014: Full refund
- For cancellations received on or after October 1 until October 30, 2014: 50% refund
- For cancellations received on or after October 31, 2014: no refunds.

Access

Kogakuin University, Shinjuku Campus



- A five-minute walk from JR Shinjuku Station, west exit
- A five-minute walk from Shinjuku Station on the Keio, Odakyu, Toei, or Tokyo Metro lines
- A three-minute walk from Tochomae Station on the Toei Oedo Line
- A 10-minute walk from Seibu Shinjuku Station on the Seibu Shinjuku Line



| | | |
|----------------|-------------------------------------|--------------|
| Narita Airport | Narita Express (approx. 80 min.) | Shinjuku |
| Narita Airport | Keisei Skyliner (approx. 60 min.) | Ueno |
| Narita Airport | Airport bus (approx. 85 min.) | Shinjuku |
| Narita Airport | Airport bus (approx. 160 min.) | Hachioji |
| Shinjuku | JR Chuo Line (approx. 35 min.) | Hachioji |
| Shinjuku | Keio Line (approx. 34 min.) | Hachioji |
| Haneda Airport | Airport bus (approx. 35 min.) | Shinjuku |
| Haneda Airport | Airport bus (approx. 75 min.) | Hachioji |
| Haneda Airport | Keihin Kyuko Line (approx. 13 min.) | Shinagawa |
| Haneda Airport | Tokyo Monorail (approx. 13 min.) | Hamamatsucho |
| | JR Yamanote Line (approx. 24 min.) | Shinjuku |
| | JR Yamanote Line (approx. 18 min.) | Shinjuku |
| | JR Yamanote Line (approx. 21 min.) | Shinjuku |

Special events

Opening Ceremony & Reception

Date: 17:30-20:00, Oct. 31 (Fri.), 2014

Location: Faculty Club (8F)

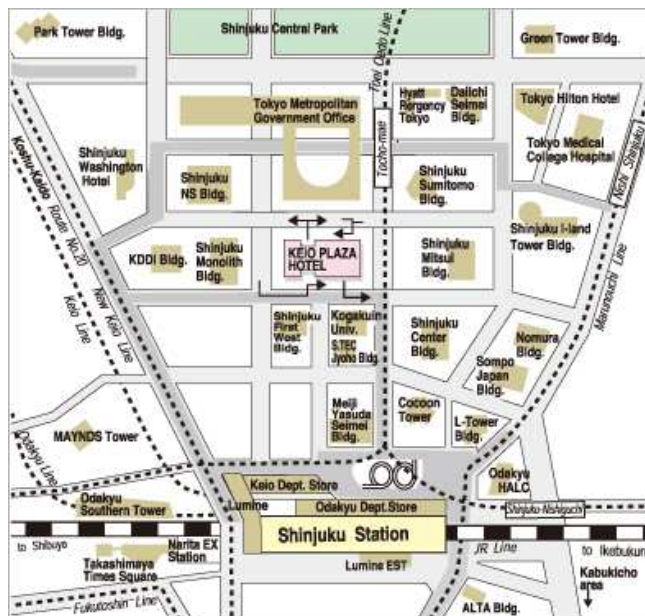
Symposia Dinner

Date: 18:30-21:00, Nov. 1 (Sat.), 2014

Location: Keio Plaza Hotel Tokyo

Fee: Included in the Registration fee

Access to Keio Plaza Hotel



Panel Discussion

Date: 14:00-16:15, Nov. 2 (Sun.), 2014

Location: Urban tech Hall (3F)

Panelists

Prof. E. Negishi

Purdue Univ., U. S. A.

Dr. H. Tomono

Vice Chairman, Nippon steel & Sumitomo metal corporation, Japan

Prof. E. Yamaguchi

Kyoto Univ., Japan

Dr. K. Yamamoto

Nikkan kogyo shimbun, Ltd., Japan

Prof. A. Mizuno

President, Kogakuin Univ., Japan

Scientific Program

The Scientific Program will include plenary lectures, invited lectures, oral and poster presentations. The official language of the Symposium is English. Registration, all lectures and the oral and poster presentations will be held at Shinjuku Campus, Kogakuin University.

Friday, October 31

16:30----17:30 Arrival and Registration, Faculty Club (Invite Only)

17:30----20:00 Opening Ceremony & Reception

Saturday, November 1

8:30---- Registration

9:00----9:10 Opening Remarks

Morning Session

9:10----12:00

12:00----13:00 Lunch

Afternoon Session

13:00----18:00

18:30----21:00 Symposia dinner (Keio Plaza Hotel)

Sunday, November 2

Morning Session

9:00----12:30 Ignite & Poster Session

12:30----14:00 Lunch

Afternoon Session

14:00----16:15 Panel Discussion

16:15----16:30 Closing Ceremony & the rites for poster awards

Monday, November 3

9:00----12:00 KU (Hachioji Campus) Laboratory Tour for Future Collaboration

IFAEE1 / SPACC21 Schedule-at-a-Glance

Friday, October 31

| Time | Program (IFAEE&SPACC) | Location | Arrangements |
|-------------|----------------------------------|-------------------|---------------------|
| 16:30-17:30 | Arrival & Registration | Faculty Club (8F) | |
| 17:30-20:00 | Opening Ceremony & Reception | Faculty Club (8F) | Chair: Prof. Sato |

IFAAEE1 / SPACC21 Schedule-at-a-Glance

Saturday, November 1

| Time | Presentation | Program (IFAAEE) B663 | Time | Presentation | Program (SPACC) B563 | Arrangements |
|-------------|--------------|---|-------------|-------------------------------------|---------------------------------------|---|
| 8:00-9:00 | | | 8:00-9:00 | | | |
| 9:00-9:10 | | Opening Remarks: Prof. Akisato Mizuno (President of Kogakuin University) | | | | |
| 9:10-9:50 | Plenary1 | Plenary①: Prof. Li Lu (National University of Singapore) | | | | Chair: Prof. Sato |
| 9:50-10:30 | Plenary2 | Plenary②: Prof. Enos Kiremire (University of Namibia) | | | | Chair: Prof. Yano |
| 10:30-10:45 | | Coffee Break | | | | |
| 10:45-11:15 | IFAAEE1 | Invite①: Prof. M. Kawakita | 10:40-11:00 | SPACC1 | Invite①: Prof. M. Yamaguchi | IFAAEE Chair: Prof. Imamura SPACC Chair: Prof. Amao |
| 11:15-11:30 | IFAAEE2 | | 11:00-11:20 | SPACC2 | Invite②: Dr. V. Uahengo | |
| 11:30-11:45 | IFAAEE3 | | 11:20-11:40 | SPACC3 | Invite③: Prof. T. Yamaguchi | |
| 11:45-12:00 | IFAAEE4 | | 11:40-12:00 | SPACC4 | Invite④: Prof. H. Seino | |
| 12:00-13:00 | | Lunch | | | | |
| 13:00-13:30 | IFAAEE5 | Invite②: Prof. Y. Kenmochi | 13:00-13:20 | SPACC5 | Invite⑤: Dr. M. Hirota | IFAAEE Chair: Prof. Saika SPACC Chair: Prof. Akashi |
| 13:30-13:45 | IFAAEE6 | | 13:20-13:40 | SPACC6 | Invite⑥: Prof. Y. Amao | |
| 13:45-14:00 | IFAAEE7 | | 13:40-14:00 | SPACC7 | Invite⑦: Dr. Takamatsu | |
| 14:00-14:15 | | Coffee Break | | | | |
| 14:15-14:45 | IFAAEE8 | Invite③: Prof. T. Yamaguchi | 14:15-14:35 | SPACC8 | Invite⑧: Prof. I. Kinoshita | IFAAEE Chair: Prof. Akamatsu SPACC Chair: Prof. Nishioka |
| 14:45-15:00 | IFAAEE9 | | 14:35-14:55 | SPACC9 | Invite⑨: Prof. T. Nakano | |
| 15:00-15:15 | IFAAEE10 | | 14:55-15:15 | SPACC10 | Invite⑩: Prof. H. Akashi | |
| 15:15-15:30 | IFAAEE11 | | 15:15-15:35 | SPACC11 | Invite⑪: Dr. L. Daniel | |
| 15:30-15:40 | | Coffee Break | | | | |
| 15:40-16:20 | Plenary3 | Plenary③: Cheng-Hsin Chuang (Southern Taiwan University of Science and Technology) | | | | Chair: Prof. Shiomi |
| 16:20-16:30 | | Coffee Break | | | | |
| 16:30-17:00 | IFAAEE12 | Invite④: Prof. K. Yamashita | 16:30-16:50 | SPACC12 | Invite⑫: Prof. T. Onuma | IFAAEE Chair: Prof. Okura Prof. Honda SPACC Chair: Prof. M. Yamaguchi |
| 17:00-17:15 | IFAAEE13 | | 16:50-17:00 | The rites of SPACC-awards | | |
| 17:15-17:30 | IFAAEE14 | | 17:00-17:30 | SPACC13 | SPACC-awards Lecture①: Prof. S. Ogura | |
| 17:30-18:00 | IFAAEE15 | 17:30-18:00 | SPACC14 | SPACC-awards Lecture②: Dr. H. Nagai | | |
| 18:00-18:30 | | | | | | |
| 18:30-21:00 | | Symposia Dinner (Keio Plaza Hotel) | | | | Chair: Prof. Yamada |

IFAEE1 / SPACC21 Schedule-at-a-Glance

Sunday, November 2

| Time | Program (IFAEE&SPACC) | Location | Arrangements |
|-------------|---|-----------------------------|--|
| 8:00-9:00 | | | |
| 9:00-10:40 | Ignite Session | Urban tech Hall (3F) | Chair: Prof. Abe Prof. Sugiyama |
| 10:40-10:50 | Coffee Break | | |
| 10:50-11:40 | Poster Session (odd number) | Atrium (1F) | |
| 11:40-12:30 | Poster Session (even number) | | |
| 12:30-14:00 | Lunch | | |
| 14:00-16:15 | Panel Discussion (In Japanese) | Urban tech Hall (3F) | Chair: Prof. Sato |
| 16:15-16:30 | Closing Ceremony & the rites for poster award Prof. M. Yamaguchi, President of SPACC | Urban tech Hall (3F) | Chair: Prof. Sato |

PROGRAM

Joint Symposia

The 1st Innovation Forum of Advanced Engineering and Education

The 21st International SPACC Symposium

IFAAEE1 / SPACC21

Saturday, November 1

Chair: M. Sato, Kogakuin Univ., Japan

9:00-9:10 Opening Room B663

Opening Remarks

9:00 A. Mizuno, President of Kogakuin University, Kogakuin Univ., Japan

9:10-10:30 Plenary Room B663

Chair: M. Sato, Kogakuin Univ., Japan

Plenary1 **Li-ion conductors and all-solid-state batteries**

9:10-9:50 L. Lu, S. Song, and Y. Zhu
National University of Singapore, Singapore

Chair: S. Yano,

Nara Inst. of Science and Technology, Japan

Plenary2 **A new approach to cluster theory of transition metal carbonyl complexes**

9:50-10:30 E. M. R. Kiremire and L. Daniel
Univ. of Namibia, Namibia

---- Coffee Break (10:30-10:45) ----

10:45-12:00 IFAAEE Room B663

Chair: Y. Imamura, Kogakuin Univ., Japan

IFAAEE1 **(Invited) Urinary Tumor marker N¹,N¹²-diacetylspermine: clinical significance, determination, production and excretion**

10:45-11:15 M. Kawakita,¹ K. Hiramatsu,¹ S. Moriya,¹ K. Samejima,¹ and K. Takahashi²

¹ Tokyo metropolitan institute of medical science, Japan, ² Tokyo

Metropolitan Cancer and Infectious Diseases Center Komagome Hospital, Japan

IFAAEE2 **Application of GUMMETAL to Biomedical Devices**

Y. Kimura
Kogakuin Univ., Japan

IFAAEE3 **Individual Analysis of PM2.5 by means of High-Resolution Time-of-Flight Secondary Ion Mass Spectrometry**

T. Sakamoto
Kogakuin Univ., Japan

IFAAEE4 **Study of Micro Electrode Forming Method**

A. Hirao,¹ T. Tani,² and H. Takezawa¹
¹ Kogakuin Univ., Japan,
² Tsukuba Univ. of Technol., Japan

10:40-12:00 SPACC Room B563

Chair: Y. Amao, Osaka City Univ., Japan

SPACC1 **(Invited) Responsive Switching of Photochemical Ligand Substitution on Ruthenium Complexes**

M. Yamaguchi, T. Eguchi, T. Masano, A. Kobayashi, and K. Sato
Tokyo Metropolitan Univ., Japan

SPACC2 **(Invited) The synthesis and characterization of dinuclear ruthenium sensitizers and their applications in photocatalytic hydrogen production**

V. Uahengo,¹ X.-H. Zhang,² T.-Y. Peng,² P. Cai,² and G.-Z. Cheng²

¹ Univ. of Namibia, Namibia, ² Wuhan Univ., China

SPACC3 **(Invited) Mist Chemical Vapor Deposition Growth of Group-III Oxides And Its Growth Mechanism**

T. Yamaguchi,¹ T. Hatakeyama,¹ K. Tanuma,¹ M. Sugimoto,¹ H. Nagai,¹ T. Onuma,^{1,2} M. Sato,¹ and T. Honda²
¹ Kogakuin Univ., Japan, ² Tokyo National College of Technol., Japan

SPACC4 (Invited) Conversion of Hydrazines on the Transition Metal–Sulfido Clusters Having a Cubane-type Core

H. Seino,¹ Y. Arai,¹ K. Hirata,² Y. Shibata,² and Y. Mizobe²

¹ Akita Univ., Japan

² The Univ. of Tokyo, Japan

---- Lunch (12:00-13:00) ----

13:00-14:00 IFAEE

Room B663

Chair: T. Saika, Kogakuin Univ., Japan

IFAEE5 Two problems to be solved for Japanese teachers attribute in Engineering Education

Y. Kenmochi

Japanese Society for Engineering Education, Japan

IFAEE6 Synthetic Study of Venturicidins

13:30-13:45 S. Nagumo

Kogakuin Univ., Japan

IFAEE7 New Superionic Conductor

13:45-14:00 Narpsio Glass-Ceramics:

Crystallization Kinetics and Conduction Properties

T. Okura and N. Yoshida

Kogakuin Univ., Japan

13:00-14:00 SPACC

Room B563

Chair: H. Akashi, Okayama Univ. of Science, Japan

SPACC5 (Invited) Bone responses to zirconia implants with a thin carbonate-containing hydroxyapatite coating using a molecular precursor method

M. Hirota,¹ T. Hayakawa,² C. Ohkubo,¹ M. Sato,³ H. Hara,³ T. Toyama,⁴ and Y. Tanaka⁵

^{1,2} Tsurumi Univ. School of Dental Medicine, Japan, ³ Kogakuin Univ., Japan, ⁴ Nihon Univ., Japan, ⁵ Kagawa Univ., Japan

SPACC6 (Invited) Artificial Photosynthesis System for Solar Fuel and Energy Carrier Molecule Production

Y. Amao,^{1,2,3}

^{1,2} Osaka City Univ., Japan, ³ PRESTO, JST, Japan

SPACC7 (Invited) Investigation of ROS Production Process using Multi-Gas Plasma

T. Takamatsu,^{1,2} Y. Sasaki,² H. Miyahara,² Y. Matsumura,³ A. Iwasawa,³ M. Kohno,³ T. Azuma,¹ and A. Okino²

¹ Kobe Univ., Japan, ^{2,3} Tokyo Institute of Technology, Japan

---- Coffee Break (14:00-14:15) ----

14:15-15:30 IFAEE

Room B663

Chair: K. Akamatsu, Kogakuin Univ., Japan

IFAEE8 (Invited) Systematic material design and development for Fuel Cells

T. Yamaguchi,^{1,2,3}

¹ Tokyo Institute of Technology, Japan, ² CREST, JST, Japan, ³ Kanagawa Academy of Science and Technology (KAST), Japan

IFAEE9 Biochemical Analysis of Mammalian Chitinases

14:45-15:00 F. Oyama, M. Ohno, A. Kashimura, K. Okawa, K. Ishikawa, M. Sakaguchi, and Y. Sugahara
Kogakuin Univ., Japan

IFAEE10 Astrophysics and Particle Physics: Current Status and Future Prospects

T. Muto and T. Shindou

Kogakuin Univ., Japan

IFAEE11 Environmentally Friendly Repeatably Adhesion System Using Polymer Brushes

15:15-15:30 M. Kobayashi

Kogakuin Univ., Japan

14:15-15:35 SPACC Room B563

---- Coffee Break (16:20-16:30) ----

Chair: T. Nishioka, Osaka City Univ., Japan
SPACC8 (Invited) Tunable M-C Bond
14:15-14:35 Containing Complexes Toward Hydrogen Evolution

I. Kinoshita
Osaka City Univ., Japan

SPACC9 (Invited) Fabrication of BGaN
14:35-14:55 semiconductor device for neutron detection

T. Nakano,¹ Y. Inoue,¹ H. Mimura,²
and T. Aoki²
^{1,2} Shizuoka Univ., Japan

SPACC10 (Invited) Synthesis and
14:55-15:15 Photofunction of Magnesium (II) Complexes of Sugar-conjugated Fluorochlorin Derivatives

H. Akashi,¹ T. Sawada,¹ K. Moriwaki,¹ and S. Yano²
¹ Okayama Univ. of Science, Japan, ²
Nara Institute of Science and Technology, Japan

SPACC11 (Invited) Electrical resistivity and
15:15-15:35 electrochemical properties of Ag-nanoparticles/zirconia (Ag-NP/ZrO₂) composite thin films fabricated by molecular precursor method.

L.S. Daniel,¹ H. Nagai,² H. Hara,²
and M. Sato²
¹ Univ. of Namibia, Namibia, ²
Kogakuin Univ., Japan

---- Coffee Break (15:30-15:40) ----

15:40-16:20 Plenary Room B663

Chair: M. Shiomi, Kogakuin Univ., Japan
Plenary3 Miniaturized Immunoassay System
15:40-16:20 based on Impedance Sensing and Dielectrophoretic Manipulations of Nanoprobes

C.H. Chuang, C.H. Chen, T.F. Wu,
S.M. Chen, K.C. Chang, and H.P. Wu
Southern Taiwan Univ. of Science
and Technology, Taiwan

16:30-18:00 IFAEE Room B663

Chairs: T. Okura and T. Honda,
Kogakuin Univ., Japan

IFAEE12 (Invited) Concept and
16:30-17:00 Fundamental Properties of Ceramic Electrets as Vector Materials for Biomedical and Energy Devices

K. Yamashita
Tokyo Medical and Dental Univ.,
Japan

IFAEE13 Development of Engineering
17:00-17:15 Profession through Engineering Educational Programs of Kogakuin University accredited by the JABEE

T. Saika
Kogakuin Univ., Japan

IFAEE14 Electrochemical Production of
17:15-17:30 Highly Concentrated Ozone Water

F. Okada,¹ S. Tanaka,¹ S. Tanaka,¹
and K. Naya²
¹ Kogakuin Univ., Japan, ² Ishikawa
Casting & Machining Co., Ltd.,
Japan

IFAEE15 (Invited) Recent Progress in
17:30-18:00 Nitride Semiconductors ~from Epitaxial Growth to Device Applications~

T. Matsuoka
Tohoku Univ., Japan

16:30-18:00 SPACC Room B563

Chair: M. Yamaguchi,
Tokyo Metropolitan Univ., Japan

SPACC12 (Invited) Optical characterization
16:30-16:50 of gallium-indium-oxide wide bandgap semiconductors for future device applications

T. Onuma,^{1,2} C. Mochizuki,² H.
Nagai,² T. Yamaguchi,² M. Sato,² and
T. Honda²

¹ Tokyo National College of
Technol., Japan, ² Kogakuin Univ.,

Japan
16:50-17:00 **The rites of SPACC-awards**
SPACC13 **(Award) Tumor-specific porphyrin**
17:00-17:30 **accumulation and tumor screening**
after administration of
aminolevulinic acid
 S. Ogura, Y. Hagiya, and I. Okura
 Tokyo Institute of Technology, Japan
SPACC14 **(Award) Fabrication of p-type**
17:30-18:00 **Cu₂O thin films for electronic**
devices by molecular precursor
method
 H. Nagai and M. Sato
 Kogakuin Univ., Japan

18:30-21:00 **Symposia Dinner** Keio Plaza Hotel

Chair: M. Yamada, Kogakuin Univ., Japan

Sunday, November 2

9:00-10:40 **Ignite Session** Urban tech Hall

Chairs: K. Abe and K. Sugiyama,
 Kogakuin Univ., Japan

IFAEEp1-1 **Expression of *Listeria innocua***
9:10-9:15 **chitinases in *Escherichia coli* and**
comparison of their properties
 S. Honda, Y. Sugahara, F. Oyama, and
 M. Sakaguchi
 Kogakuin Univ., Japan

IFAEEp2-1 **Study on deterioration behavior of**
9:15-9:20 **ground coffee beans during storage**
period
 T. Murashige, K. Ishigo, K. Sugiyama,
 and M. Yamada
 Kogakuin Univ., Japan

IFAEEp3-1 **Formation of Indoor Nano-sized**
9:20-9:25 **Secondary Organic Aerosols (ISOAs)**
in a Model Residential Room and
Measurements of their OC, EC and
WSOC Concentrations
 M. Suzuki,¹ N. Namiki,² N. Kagi,³ S.
 Fujii,³ and K. Sekiguchi⁴
^{1,2} Kogakuin Univ., Japan, ³ Tokyo
 Institute of Technology, Japan, ⁴

Saitama Univ., Japan
IFAEEp4-1 **Fabrication and characterization of**
9:25-9:30 **photovoltaic devices consisted of**
metal-oxide thin films fabricated by
molecular precursor method
 Y. Inaoka, H. Nagai, T. Honda, and M.
 Sato
 Kogakuin Univ., Japan

IFAEEp5-1 **Development of human interface for**
9:30-9:35 **spinal cord injury patient to enhance**
quality of life
 A. Tanishima¹ and T. Kanamaru²
^{1,2} Kogakuin Univ., Japan

SPACCp1 **Reduction of heterometallic**
9:35-9:40 **trinuclear complexes containing**
N-heterocyclic carbene platinum or
palladium units
 Y. Maeda,¹ H. Hashimoto,^{1,2} I.
 Kinoshita,^{1,2} and T. Nishioka¹
^{1,2} Osaka City Univ., Japan

IFAEEp1-2 **Effect of Protecting Group in**
9:40-9:45 **Reaction of Epoxy Alcohols with**
Organocopper Reagent
 S. Ushijima, N. Terayama, E. Yasui,
 and S. Nagumo
 Kogakuin Univ., Japan

IFAEEp2-2 **Antifouling Property of**
9:45-9:50 **Polyzwitterion Brushes Bearing**
Serine Moiety
 M. Ikeda, K. Yamaguchi, and M.
 Kobayashi
 Kogakuin Univ., Japan

IFAEEp3-2 **First-Principles Calculations of**
9:50-9:55 **Discharge Precipitates in Li-air**
Battery Cathode
 W. Yamamoto, H. Takaba, and K. Alam
 Kogakuin Univ., Japan

IFAEEp4-2 **Influence of native surface oxide on**
9:55-10:00 **n-type GaN**
 Y. Sugiura, D. Isono, T. Yamaguchi,
 and T. Honda
 Kogakuin Univ., Japan

IFAEEp5-2 **Research and Development of an**
10:00-10:05 **Ammonia Fueled Fuel Cell Electric**
Vehicle
 K. Yamamoto¹ and T. Saika²
^{1,2} Kogakuin Univ., Japan

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| <p>SPACCP2 10:05-10:10</p> | <p>The Effect of 5-Aminolevulinic Acid on Cytochrome P450-Based Prodrug Activation M. Miura,¹ K. Ito,¹ M. Hayashi,¹ T. Tanaka,² I. Okura,¹ and S. Ogura¹ ¹ Tokyo Institute of Technology, Japan, ² SBI Pharmaceuticals CO., LTD., Japan</p> | <p>10:40-12:30 Poster Session</p> | <p>Atrium</p> |
| <p>IFAEep1-3 10:10-10:15</p> | <p>Cocultivation of aerial microalgae and nitrogen-fixing bacteria on solid surface S. Sekiguchi, N. Aburai, and K. Abe Kogakuin Univ., Japan</p> | <p>IFAEep1-1</p> | <p>Expression of <i>Listeria innocua</i> chitinases in <i>Escherichia coli</i> and comparison of their properties S. Honda, Y. Sugahara, F. Oyama, and M. Sakaguchi Kogakuin Univ., Japan</p> |
| <p>IFAEep2-3 10:15-10:20</p> | <p>Fabrication of ordered microstructure on III-V semiconductor by chemical etching with noble metal Y. Suzuki, H. Asoh, and S. Ono Kogakuin Univ., Japan</p> | <p>IFAEep1-2</p> | <p>Effect of Protecting Group in Reaction of Epoxy Alcohols with Organocopper Reagent S. Ushijima, N. Terayama, E. Yasui, and S. Nagumo Kogakuin Univ., Japan</p> |
| <p>IFAEep3-3 10:20-10:25</p> | <p>Particle classification using microfiltration membranes R. Makabe, K. Akamatsu, and S. Nakao Kogakuin Univ., Japan</p> | <p>IFAEep1-3</p> | <p>Cocultivation of aerial microalgae and nitrogen-fixing bacteria on solid surface S. Sekiguchi, N. Aburai, and K. Abe Kogakuin Univ., Japan</p> |
| <p>IFAEep4-3 10:25-10:30</p> | <p>Mist chemical vapor deposition growth of low Al-composition α-(AlGa)₂O₃ T. Hatakeyama,¹ K. Tanuma,¹ S. Osawa,¹ Y. Sugiura,¹ T. Onuma,^{1,2} T. Hirasaki,³ H. Murakami,³ T. Yamaguchi,¹ and T. Honda¹ ¹ Kogakuin Univ., Japan, ² Tokyo National College of Technology, Japan, ³ Tokyo Univ. of Agriculture and Technology, Japan</p> | <p>IFAEep1-4</p> | <p>Synthetic study of Arenicolides M. Naitou, S. Sunagawa, E. Yasui, M. Miyashita, and S. Nagumo Kogakuin Univ., Japan</p> |
| <p>IFAEep5-3 10:30-10:35</p> | <p>Chitosan-Based Device for Radioisotope Removal Y. Watabe,¹ N. Banzai,¹ R. Yokosawa, M. Shiomi,² and S. Brooke² ^{1,2} Kogakuin Univ., Japan</p> | <p>IFAEep1-5</p> | <p>Expression of mouse chitotriosidase in <i>Escherichia coli</i> M. Kimura, K. Ishikawa, K. Sekine, S. Yoshikawa, A. Sato, K. Okawa, A. Kashimura, M. Sakaguchi, Y. Sugahara, and F. Oyama Kogakuin Univ., Japan</p> |
| <p>SPACCP3 10:35-10:40</p> | <p>On the synthesis and characterization of Zn(II) and Cd(II) complexes of bis(2-acetylpyridine)-thiocarbohydrazone for biological evaluation against the malaria parasite P.N. Hishimone,¹ E.M.R. Kiremmire,² and L.S. Daniel² ^{1,2} Univ. of Namibia, Namibia</p> | <p>IFAEep1-6</p> | <p>Characterization of extracellular protease and amino acid oxidase produced by the aerial microalga <i>Vischeria helvetica</i> (Eustigmatophyceae) cultured under various light conditions S. Maruyama, N. Aburai, and K. Abe Kogakuin Univ., Japan</p> |
| | | <p>IFAEep1-7</p> | <p>Isolation and characterization of venom protein derived from the <i>Ovophis okinavensis</i> (Himehabu) which specifically inhibit cell adhesion to fibronectin H. Yoshie, Y. Shin, T. Takahashi, M. Misumi, T. Tohyama, and Y. Imamura Kogakuin Univ., Japan</p> |

- IFAEep1-8 Reductive S_N2' reaction of epoxy unsaturated ester with BH₃ producing Z-Alkene selectively**
K. Furukawa,¹ T. Nakano,¹ Y. Suzuki,^{1,2} E. Yasui,¹ M. Miyashita,¹ and S. Nagumo¹
¹ Kogakuin Univ., Japan, ² Hokkaido Pharmaceutical Univ., Japan
- IFAEep1-9 Comparison of mRNA levels among Chit1, AMCcase and reference genes in mouse tissues**
M. Ohno, K. Tsuda, M. Sakaguchi, Y. Sugahara, and F. Oyama
Kogakuin Univ., Japan
- IFAEep1-10 Factors on the sea cucumber collagen fibrils which affect interactions between the fibrils**
J. Igarashi, S. Ito, K. Noda, Y. Harada, Y. Shin, K. Murakami, C. Mochizuki, M. Sato, and Y. Imamura
Kogakuin Univ., Japan
- IFAEep1-11 Second-generation synthetic study of Sekothrixide**
K. Nakasone, N. Terayama, E. Yasui, and S. Nagumo
Kogakuin Univ., Japan
- IFAEep1-12 Characterization of Escherichia coli-produced human acidic mammalian chitinase**
K. Okawa, A. Kashimura, Y. Kobayashi, M. Ohno, M. Sakaguchi, Y. Sugahara, and F. Oyama
Kogakuin Univ., Japan
- IFAEep1-13 Elucidation of the molecular mechanism of ADAMTS13 cleavage by plasmin in blood plasma**
H. Miyake,¹ Y. Shin,¹ Y. Umetsu,¹ R. Hiratsuka,¹ A. Takahashi,¹ K. Endo,¹ K. Soejima,³ and Y. Imamura¹
^{1,2} Kogakuin Univ., Japan, ³ The Chem-Sero-Therapeutic Research Institute, Japan
- IFAEep1-14 A novel tandem cyclization of the iminium ion with Alkyne Co₂(CO)₆ complex**
Y. Sakata, E. Yasui, and S. Nagumo
Kogakuin Univ., Japan
- IFAEep1-15 Expression of mouse acidic mammalian chitinase in periplasmic space of Escherichia coli**
A. Kashimura, K. Okawa, K. Ishikawa, Y. Kida, K. Iwabuchi, Y. Matsushima, M. Sakaguchi, Y. Sugahara, and F. Oyama
Kogakuin Univ., Japan
- IFAEep1-16 Study of stress response signaling of carotenogenesis using inhibitors of fatty acids synthesis in aerial microalgae**
N. Aburai and K. Abe
Kogakuin Univ., Japan
- IFAEep2-1 Study on deterioration behavior of ground coffee beans during storage period**
T. Murashige, K. Ishigo, K. Sugiyama, and M. Yamada
Kogakuin Univ., Japan
- IFAEep2-2 Antifouling Property of Polyzwitterion Brushes Bearing Serine Moiety**
M. Ikeda, K. Yamaguchi, and M. Kobayashi
Kogakuin Univ., Japan
- IFAEep2-3 Fabrication of ordered microstructure on III-V semiconductor by chemical etching with noble metal**
Y. Suzuki, H. Asoh, and S. Ono
Kogakuin Univ., Japan
- IFAEep2-4 Control of dynamic hydrophobicity on self-assembled monolayer surface**
Y. Okutomi, N. Yoshida, and T. Okura
Kogakuin Univ., Japan
- IFAEep2-5 Study on high thermal conductivity mechanism of 2,7-Naphthalene benzoate twin-mesogen epoxy polymer**
M. Furukawa, T. Kawai, and Y. Itoh
Kogakuin Univ., Japan

- IFAEep2-6** **Preparation and photocatalytic activity of thin film of Zn-doped calcium phosphate**
Y. Nakamura, N. Yoshida, and T. Okura
Kogakuin Univ., Japan
- IFAEep2-7** **Preparation and catalysis of the zeolite-supported metal catalysts derived from metal complexes**
T. Numa, H. Iida, and K. Okumura
Kogakuin Univ., Japan
- IFAEep2-8** **Synthesis of rare earth-free NASICON-type solid electrolyte**
C. Yokoyama, N. Yoshida, and T. Okura
Kogakuin Univ., Japan
- IFAEep2-9** **Sorption-Desorption behavior of Cesium on Clay particles**
M. Uehara and M. Kamaya
Kogakuin Univ., Japan
- IFAEep2-10** **Preparation of novel Narpsio solid electrolyte by exchanging carrier-ion with proton**
Y. Takahashi, N. Yoshida, and T. Okura
Kogakuin Univ., Japan
- IFAEep2-11** **Surface Grafting of Polymers by Electrochemically Mediated Copper-based Atom Transfer Radical Polymerization**
H. Yoshioka, K. Yamaguchi, and M. Kobayashi
Kogakuin Univ., Japan
- IFAEep2-12** **Structure and corrosion resistance of multilayered anodic oxide film formed on magnesium**
A. Kurihara, H. Asoh, and S. Ono
Kogakuin Univ., Japan
- IFAEep2-13** **Evaluation of dynamic wettability on 2D inverse opal structure**
K. Fukasawa, N. Yoshida, and T. Okura
Kogakuin Univ., Japan
- IFAEep2-14** **Effect of Refrigerated Dough Bread-making Method on the Flavor Compounds in White Bread**
S. Tajiri, K. Sugiyama, and M. Yamada
Kogakuin Univ., Japan
- IFAEep2-15** **Study on the chemical composition heterogeneity in copolymers prepared by Reversible Addition-Fragmentation Chain Transfer polymerization (RAFT) by using Adsorption High-Performance Liquid Chromatography**
Y. Koyama, T. Kawai, and Y. Itoh
Kogakuin Univ., Japan
- IFAEep2-16** **Preparation and luminescence properties of Eu³⁺-Dy³⁺codoped Narpsio glass-ceramics**
K. Matsubara, N. Yoshida, and T. Okura
Kogakuin Univ., Japan
- IFAEep2-17** **Effect of drying condition (temperature, time) on volatile organic compounds from spaghetti**
S. Iwase, K. Sugiyama, and M. Yamada
Kogakuin Univ., Japan
- IFAEep2-18** **Fabrication of High-Aspect-Ratio GaAs Nanowires by Anodic Etching and Their Electron Emission Property**
D. Ito, H. Asoh, and S. Ono
Kogakuin Univ., Japan
- IFAEep2-19** **Synthesis of alkali ion-exchanged Narpsio glass-ceramics**
Y. Ota, N. Yoshida, and T. Okura
Kogakuin Univ., Japan
- IFAEep2-20** **Spectrophotometric determination of arsenic (III) with the Leucoberbelin Blue**
Y. Otomura and M. Kamaya
Kogakuin Univ., Japan
- IFAEep2-21** **Wettability of MgO-P₂O₅ Glass Surfaces**
N. Yoshida, N. Masuda, M. Yamada, and T. Okura
Kogakuin Univ., Japan

- IFAEep3-1** **Formation of Indoor Nano-sized Secondary Organic Aerosols (ISOAs) in a Model Residential Room and Measurements of their OC, EC and WSOC Concentrations**
M. Suzuki,¹ N. Namiki,² N. Kagi,³ S. Fujii,³ and K. Sekiguchi⁴
^{1,2} Kogakuin Univ., Japan, ³ Tokyo Institute of Technology, Japan, ⁴ Saitama Univ., Japan
- IFAEep3-2** **First-Principles Calculations of Discharge Precipitates in Li-air Battery Cathode**
W. Yamamoto, H. Takaba, and K. Alam
Kogakuin Univ., Japan
- IFAEep3-3** **Particle classification using microfiltration membranes**
R. Makabe, K. Akamatsu, and S. Nakao
Kogakuin Univ., Japan
- IFAEep3-4** **Fabrication and Thermoelectric Properties of BiCuSeO**
T. Sato, H. Kohri, and T. Yagasaki
Kogakuin Univ., Japan
- IFAEep3-5** **Theoretical Screening of Host Structure for Yellow and Red Luminescence Phosphors**
T. Aoki and H. Takaba
Kogakuin Univ., Japan
- IFAEep3-6** **Development of multi-tube membrane module using silica membrane for hydrogen separation**
K. Sato,¹ K. Akamatsu,¹ S. Furuta,² and S. Nakao¹
¹ Kogakuin Univ., Japan, ² JX Nippon Oil & Energy Corporation, Japan
- IFAEep3-7** **Evaluation of dynamic behaviors of environmental tobacco smoke at the interface where a swinging door with louvers is open or closed**
T. Yamada,¹ N. Namiki,² and N. Kagi³
^{1,2} Kogakuin Univ., Japan, ³ Tokyo Institute of Technology, Japan
- IFAEep3-8** **Prediction of Sugar Structure from MALDI Spectra Based on Informatics and Quantum Chemical Calculation**
T. Ishidou, Y. Hayabusa, and H. Takaba
Kogakuin Univ., Japan
- IFAEep3-9** **Improvement of erosion-corrosion resistance of aluminum brass by optimizing electroless nickel plating bath composition**
M. Shiohara, T. Yagasaki, and Y. Kimura
Kogakuin Univ., Japan
- IFAEep3-10** **Density Functional Theory Study of OH and CO Adsorption on the Pt₂Ru₃ Surface**
Md. K. Alam and H. Takaba
Kogakuin Univ., Japan
- IFAEep3-11** **Biocompatibility and surface properties of high temperature in air oxidized Ni-Ti alloy**
T. Kondo,¹ K. Oya,² and Y. Kimura¹
¹ Kogakuin Univ., Japan, ² Tokai Univ., Japan
- IFAEep3-12** **Scope3 of Kogakuin University**
A. Inaba,¹ K. Miyata,¹ and K. Tanaka²
¹ Kogakuin Univ., Japan, ² e.s.feed, Japan
- IFAEep3-13** **Environmental profile of Stone-Papern**
A. Inaba,¹ N. Shinozaki,¹ T. Kawashima,¹ and M. Motoshita^{2,3}
¹ Kogakuin Univ., Japan, ² National Institute of Advanced Industrial Science and Technology, Japan, ³ Technische Universitaet Berlin, Germany
- IFAEep4-1** **Fabrication and characterization of photovoltaic devices consisted of metal-oxide thin films fabricated by molecular precursor method**
Y. Inaoka, H. Nagai, T. Honda, and M. Sato
Kogakuin Univ., Japan

- IFAEep4-2** **Influence of native surface oxide on n-type GaN**
Y. Sugiura, D. Isono, T. Yamaguchi, and T. Honda
Kogakuin Univ., Japan
- IFAEep4-3** **Mist chemical vapor deposition growth of low Al-composition α -(AlGa)₂O₃**
T. Hatakeyama,¹ K. Tanuma,¹ S. Osawa,¹ Y. Sugiura,¹ T. Onuma,^{1,2} T. Hirasaki,³ H. Murakami,³ T. Yamaguchi,¹ and T. Honda¹
¹ Kogakuin Univ., Japan, ² Tokyo National College of Technology, Japan, ³ Tokyo Univ. of Agriculture and Technology, Japan
- IFAEep4-4** **Template layer for c-axis oriented ZnO thin films by using a molecular precursor solution**
T. Shibukawa, H. Nagai, I. Takano, T. Honda, and M. Sato
Kogakuin Univ., Japan
- IFAEep4-5** **Effect of Head Field Rise Time on Bit Error Rate for Heat Assisted Magnetic Recording combined with BPM**
N. Tamura and F. Akagi
Kogakuin Univ., Japan
- IFAEep4-6** **Characterization of fluorescence emission on GaInN films**
N. Toyomitsu,¹ L. Sang,² T. Yamaguchi,¹ T. Honda,¹ and M. Sumiya²
¹ Kogakuin Univ., Japan, ² National Institute for Materials Science (NIMS), Japan
- IFAEep4-7** **Characterization of GaN thin film grown on pseudo Al template by radio-frequency plasma-assisted molecular beam epitaxy**
Y. Watanabe,¹ S. Osawa,¹ T. Onuma,² T. Yamaguchi,¹ and T. Honda¹
¹ Kogakuin Univ., Japan, ² Tokyo National College of Technology, Japan
- IFAEep4-8** **TOF-SIMS analysis of plants under frozen condition**
K. Kanenari,¹ J. Ichinose,² K. Ooishi,² K. Ootsuka,² and T. Sakamoto^{1,2}
^{1,2} Kogakuin Univ., Japan
- IFAEep4-9** **Interface reaction between Al and N atoms in GaN growth on Al by RF-MBE**
S. Osawa,¹ T. Yamaguchi,¹ T. Onuma,^{1,2} and T. Honda¹
¹ Kogakuin Univ., Japan, ² Tokyo National College of Technol., Japan
- IFAEep4-10** **Fabrication and electrochemical properties of LiNi_{0.5}Mn_{0.5}O₂ thin-film cathode for lithium ion batteries**
K. Honma,¹ H. Nagai,¹ L. Lu,² I. Takano,¹ T. Honda,¹ and M. Sato¹
¹ Kogakuin Univ., Japan, ² National Univ. of Singapore, Singapore
- IFAEep4-11** **Ultrasonic Precise Distance Measurement and Movement Detection Installed in Sensor Network**
T. Sato, Y. Kaneda, and M. Hikita
Kogakuin Univ., Japan
- IFAEep4-12** **A Study of Two-Dimensional (0,G/I) Codes for Two-Dimensional Magnetic Recording**
H. Fukawa¹ and H. Saito²
^{1,2} Kogakuin Univ., Japan
- IFAEep4-13** **Fabrication of ZnO thin film by molecular precursor method**
R. Goto, H. Nagai, T. Yamaguchi, M. Sato, and T. Honda
Kogakuin Univ., Japan
- IFAEep4-14** **Structural determination of Ethyl (E) 2-cyano-3-alkoxy-pent-2-enoate obtained by a coupling reaction between α , β -unsaturated acetal and cyanoacetate, catalyzed with Ru complexes**
T. Kondo,¹ H. Seino,² C. Mochizuki,¹ M. Yamaguchi,³ and M. Sato¹
¹ Kogakuin Univ., Japan, ² Akita Univ., Japan, ³ Tokyo Metropolitan Univ., Japan
- IFAEep4-15** **Mist Chemical Vapor Deposition Growth of Ga-In-O films**
K. Tanuma,¹ T. Hatakeyama,¹ R.

- Goto,¹ T. Onuma,^{1,2} T. Yamaguchi,¹ and T. Honda¹
¹ Kogakuin Univ., Japan, ² Tokyo National College of Technol., Japan
- IFAEep4-16 PM2.5 Classification based on Cluster Analysis of Their Shapes in SEM Images**
 Y. Makino, K. Ooisi, S. Tagata, K. Otsuka, and T. Sakamoto
 Kogakuin Univ., Japan
- IFAEep4-17 Rotary Motion Generated by Synthesized Circular / Elliptic Drive with Straight-Move Ultrasonic Motors**
 Y. Nagira, T. Sakayachi, and M. Hikita
 Kogakuin Univ., Japan
- IFAEep4-18 X-ray photoelectron spectroscopy of C+, C- and M-GaN surfaces**
 D. Isono, Y. Sugiura, T. Yamaguchi, and T. Honda
 Kogakuin Univ., Japan
- IFAEep4-19 Fabrication of Organic LED using Electro-Spray Deposition Method**
 Y. Maekubo,¹ R. Anegawa,² S. Kikukawa,² S. Suemura,² E. Yoshiya Sugimoto,² Y. Nishiyama,² and T. Sakamoto²
^{1,2} Kogakuin Univ., Japan
- IFAEep4-20 High Density Magnetic Recording Systems with Two-Dimensional Maximum Transition Run Code**
 H. Saito,¹ H. Fukawa,² and N. Harada²
^{1,2} Kogakuin Univ., Japan
- IFAEep5-1 Development of human interface for spinal cord injury patient to enhance quality of life**
 A. Tanishima¹ and T. Kanamaru²
^{1,2} Kogakuin Univ., Japan
- IFAEep5-2 Research and Development of an Ammonia Fueled Fuel Cell Electric Vehicle**
 K. Yamamoto¹ and T. Saika²
^{1,2} Kogakuin Univ., Japan
- IFAEep5-3 Chitosan-Based Device for Radioisotope Removal**
 Y. Watabe,¹ N. Banzai,¹ R. Yokosawa, M. Shiomi,² and S. Brooke²
^{1,2} Kogakuin Univ., Japan
- IFAEep5-4 Development of Tools to Support the Design of Tennis Racket**
 M. Amano, M. Maruoka, and Y. Nakajima
 Kogakuin Univ., Japan
- IFAEep5-5 A study on continuous measurement of the change of the spinal column curve with the posture change**
 T. Yoshida,¹ K. Horiuchi,² and K. Aoki³
^{1,2} Kogakuin Univ., Japan, ³ Nihon Univ., Japan.
- IFAEep5-6 Wind turbine blade design based on 1DCAE**
 K. Miura
 Kogakuin Univ., Japan
- IFAEep5-7 Prediction of Exterior Tire Noise by Considering Acoustic/Structure Interaction**
 K. Ouchi and Y. Nakajima
 Kogakuin Univ., Japan
- IFAEep5-8 Influence of External Magnetic Field on Neodymium Magnet by EDM**
 H. Takezawa and N. Yokote
 Kogakuin Univ., Japan
- SPACCP1 Reduction of heterometallic trinuclear complexes containing N-heterocyclic carbene platinum or palladium units**
 Y. Maeda,¹ H. Hashimoto,^{1,2} I. Kinoshita,^{1,2} and T. Nishioka¹
^{1,2} Osaka City Univ., Japan
- SPACCP2 The Effect of 5-Aminolevulinic Acid on Cytochrome P450-Based Prodrug Activation**
 M. Miura,¹ K. Ito,¹ M. Hayashi,¹ T. Tanaka,² I. Okura,¹ and S. Ogura¹
¹ Tokyo Institute of Technology, Japan, ² SBI Pharmaceuticals CO., LTD., Japan

- SPACCP3** **On the synthesis and characterization of Zn(II) and Cd(II) complexes of bis(2-acetylpyridine)-thiocarbohydrazone for biological evaluation against the malaria parasite**
P.N. Hishimone,¹ E.M.R. Kiremmire,² and L.S. Daniel²
^{1,2} Univ. of Namibia, Namibia
- SPACCP4** **Syntheses and Catalytic Ability of Sugar-Incorporated N-Heterocyclic Carbene Pincer Pd Complexes Possessing Various N-Substituents**
Y. Imanaka,¹ H. Hashimoto,^{1,2} I. Kinoshita,^{1,2} and T. Nishioka¹
^{1,2} Osaka City Univ., Japan
- SPACCP5** **Mechanism for the generation of reactive oxygen species of π -expanded porphyrin in photodynamic therapy**
R. Higashino,¹ M. Nakai,¹ S. Yano,^{2,3} and Y. Nakabayashi¹
¹ Kansai Univ., Japan, ² Kyoto Univ., Japan, ³ Nara Institute of Science and Technology, Japan
- SPACCP6** **Precise synthesis of cyclic- and star-shaped poly(3-hexylthiophene)s**
R. Nakamura,¹ D. Suemasa,¹ T. Isono,² K. Tajima,² H. Kaji,³ and T. Satoh²
^{1,2} Hokkaido Univ., Japan, ³ Kyoto Univ., Japan
- SPACCP7** **Inclusion behavior and photoreaction of anthracene derivatives in the macrocyclic tetranuclear ruthenium complex**
R. Moriyama, A. Hirayama, K. Sato, and M. Yamaguchi
Tokyo Metropolitan Univ., Japan
- SPACCP8** **Visible-light induced methanol production from carbon dioxide with enzymatic and artificial photosynthesis**
R. Kataoka¹ and Y. Amao^{2,3}
¹ Oita Univ., Japan, ² Osaka City Univ., Japan, ³ PRESTO, JST, Japan
- SPACCP9** **The role of iron ion on the photodynamic therapy using 5-aminolevulinic acid**
M. Hayashi,¹ T. Tanaka,² I. Okura,¹ and S. Ogura¹
¹ Tokyo Institute of Technology, Japan, ² SBI Pharmaceuticals CO., LTD., Japan
- SPACCP10** **Analysis of the role of hypoxia in 5-aminolevulinic acid(ALA)-based tumor therapy and diagnosis**
S. Otsuka, K. Matsumoto, and S. Ogura
Tokyo Institute of Technology, Japan
- SPACCP11** **Synthesis of Star-Shaped Poly(N-isopropylacrylamide) via Atom Transfer Radical Polymerization**
K. Yoshida,¹ Y. Zhang,¹ T. Isono,² K. Tajima,² T. Kakuchi,^{2,3} and T. Satoh²
^{1,2,3} Hokkaido Univ., Japan
- SPACCP12** **Development of artificial co-enzyme for synthesis of formic acid from carbon dioxide with formate dehydrogenase**
R. Abe¹ and Y. Amao^{2,3}
¹ Oita Univ., Japan, ² Osaka City Univ., Japan, ³ PRESTO, JST, Japan.
- SPACCP13** **Effect of chemical structure of artificial co-enzyme with 4,4'-bipyridinium salt on the photoinduced formic acid production from CO₂ with formate dehydrogenase**
S. Ikeyama¹ and Y. Amao^{1,2,3}
^{1,2} Osaka City Univ., Japan, ³ PRESTO, JST, Japan
- SPACCP14** **The mechanism of porphyrin metabolism in cancer spheroid after administration of 5-aminolevulinic acid**
T. Nakayama,¹ K. Matsumoto,¹ T. Tanaka,² I. Okura,¹ and S. Ogura¹
¹ Tokyo Institute of Technology, Japan, ² SBI Pharmaceuticals CO., LTD., Japan

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| SPACCP15 | Hydrogen production form formic acid with enzyme and the catalyst complex system A. Kai ¹ and Y. Amao ^{2,3} ¹ Oita Univ., Japan, ² Osaka City Univ., Japan, ³ PRESTO, JST, Japan | 14:00-16:15 Panel Discussion Urban tech Hall 先進工学部開設記念イベント パネル討論会 —無限の可能性を開花するイノベーションのために— ・・・ 先進工学が貢献する未来 ・・・ |
| SPACCP16 | Apatite powder syntheses via Ca complexes of amino acids which constitute non-collagen proteins C. Mochizuki, ¹ H. Nagai, ¹ T. Hayakawa, ² and M. Sato ¹ ¹ Kogakuin Univ., Japan, ² Tsurumi Univ., Japan | パネラー：根岸 英一 （工学院大学名誉博士・Purdue 大学特別教授） パネラー：友野 宏 （新日鐵住金 代表取締役副会長） |
| SPACCP17 | Tissue Response of Surface-Modified Three-Dimensional Titanium Fiber Structure T. Amemiya, ¹ Y. Fukayo, ¹ K. Nakaoka, ¹ M. Sato, ² Y. Hamada, ¹ and T. Hayakawa ³ ¹ Tsurumi Univ., Japan, ² Kogakuin Univ., Japan, ³ Tsurumi Univ., Japan | パネラー：山口 栄一 （京都大学 教授） パネラー：山本 佳世子 （日刊工業新聞社 論説委員） パネラー：水野 明哲 （工学院大学 学長） |
| SPACCP18 | Theoretical Studies on the Performance of Quantum-Dot Cellular Automata based on the Creutz-Taube Square Complex K. Tokunaga, ¹ Y. Tsuchiya, ² and M. Sakakibara ² ^{1,2} Kogakuin Univ., Japan | 司会：佐藤 光史 （工学院大学 先進工学部学部長予定） Chair: M. Sato, Kogakuin Univ., Japan 16:15-16:30 Closing Urban tech Hall Closing Ceremony & the rites for poster award 16:15-16:30 M. Yamaguchi, President of SPACC, Tokyo Metropolitan Univ., Japan |
| ---- Lunch (12:30-14:00) ---- | | |

Presentation Guidelines

ORAL PRESENTATIONS:

The time allotted to each presentation will be:

Plenary: 35 minutes talk and 5 minutes for discussion

Invited talks (IFAEE): 25 minutes talk and 3 minutes for discussion

Contributed talks (IFAEE): 10 minutes talk and 3 minutes for discussion

Invited talks (SPACC): 15 minutes talk and 3 minutes for discussion

Oral presentation will be given using a PC projector. IFAEE / SPACC will prepare a PC and a projector at each session room. Presenters may bring your own PCs.

IGNITE SESSION:

Your presentation will be part of a special type of session at IFAEE and SPACC, the Ignite sessions.

These occur at events and conferences worldwide and are a growing trend in conference planning. The student award will be chosen from this session.

1. Ignite sessions consist of 3 minute presentation. The visual presentation (using Microsoft Power Point) will have 6 slides, 30 seconds per slide, with timing preset. You can explore Ignite at <http://igniteshow.com>
2. Presentations must be submitted ahead of the conference.
3. The Ignite presenter also have to prepare the Poster presentation describing the below. The question and answer will be held at the poster session.

POSTER PRESENTATION:

Poster presentation session is scheduled on November 2, Sunday at Atrium in the 1st floor. A board (approximately 90 cm width, 120 cm height) will be available for posting each presentation. All posters will preferentially be placed on the viewing boards from the Sunday morning, so that they will be available for viewing during coffee break. On the poster board, only the paper number will be labeled. The paper title, author names, and affiliations should be prepared by the authors. Necessary tools for pinning the posters will be provided.

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