

Joint Symposia

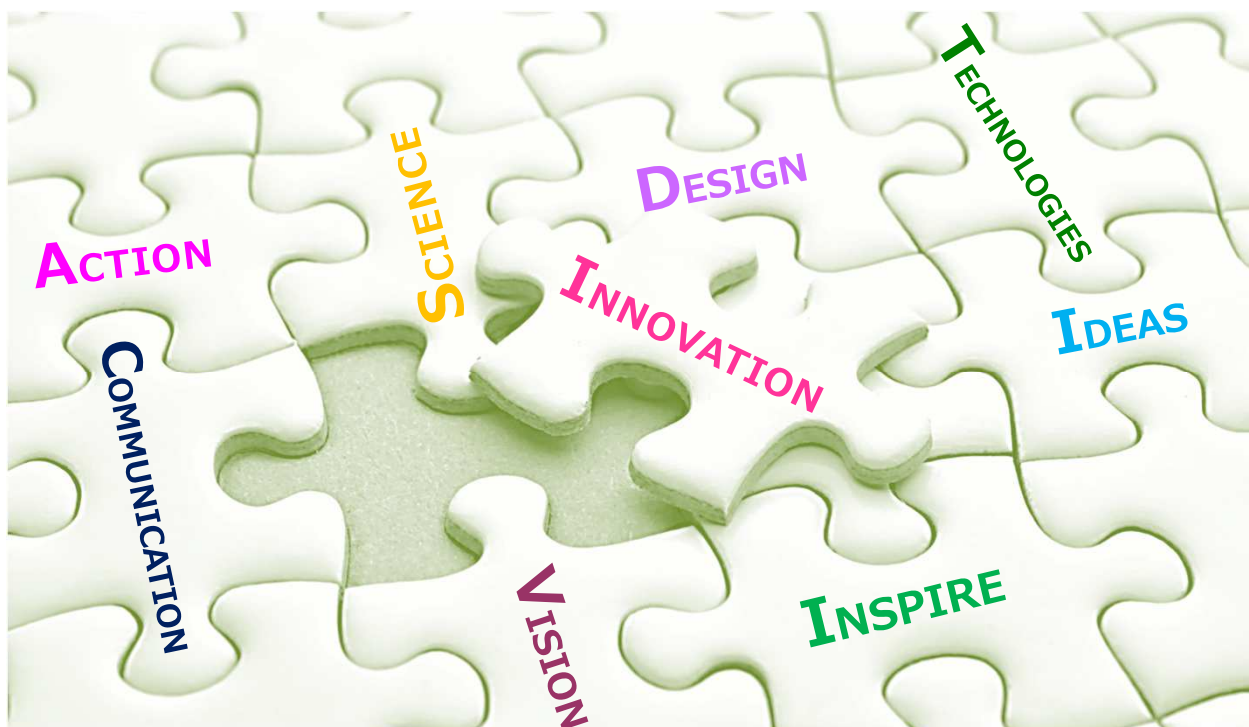
THE 1ST INNOVATION FORUM OF ADVANCED ENGINEERING EDUCATION

- New Frontiers in Advanced Engineering -

THE 21ST INTERNATIONAL SPACC SYMPOSIUM

- Innovate Applications of Coordination Compounds -

October 31 to November 3, 2014
Shinjuku, Tokyo, Japan



SPACC
先端錯体工学研究会

The Society of Pure and Applied Coordination Chemistry



INNOVATION
FORUM of
ADVANCED
ENGINEERING
EDUCATION

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

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Correspondence

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

Dr. Tomohiro Yamaguchi, Associate Professor at Kogakuin University

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Tel: +81-42-628-4651

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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

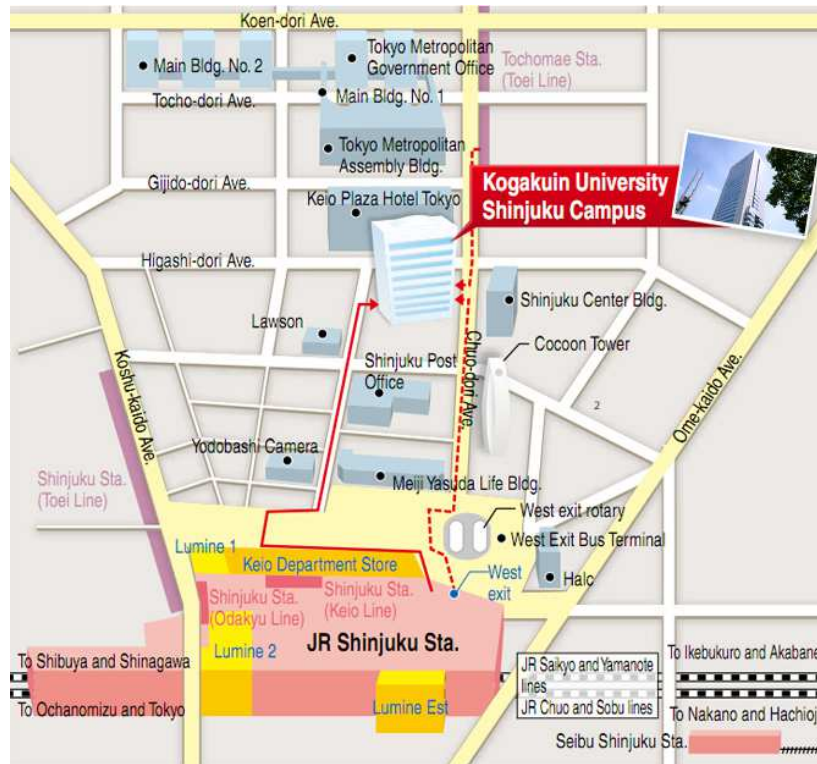
Registration Type		Early-Bird Fee* (Deadline: July 31)	Regular Fee (at symposium site)
Member	General	¥25,000	¥30,000
(Including Symposium dinner)	Student	¥12,000	¥15,000
Non-member	General	¥50,000	¥60,000
(Including Symposium dinner)	Student	¥25,000	¥30,000
Member	General	¥16,000	¥21,000
	Student	¥3,000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

The refund policy for cancellations is as follows:

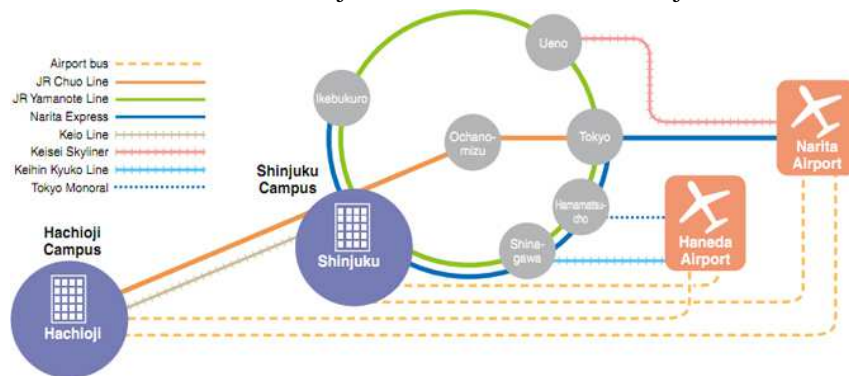
- For cancellations received on or before September 30, 2014: Full refund
- For cancellations received on or after October 1 until October 30, 2014: 50% refund
- For cancellations received on or after October 31, 2014: no refunds.

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)

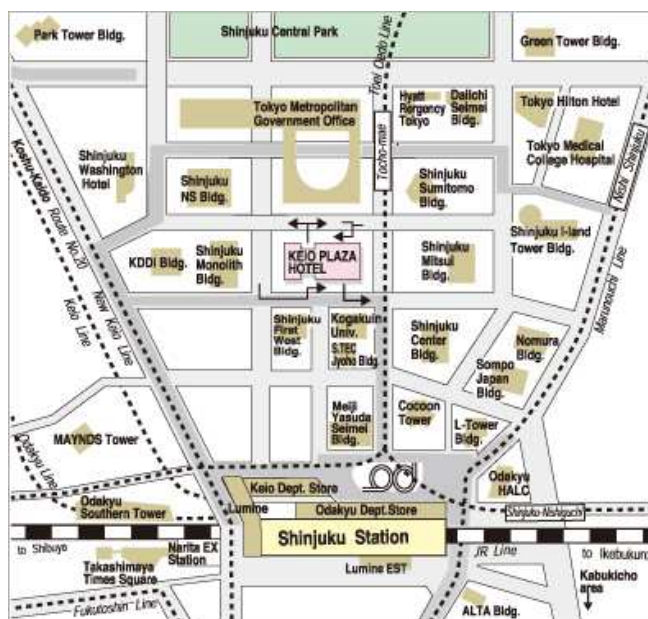
Symposia Dinner

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 President, 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

IFAEE1 / SPACC21 Schedule-at-a-Glance

Saturday, November 1

Time	Presentation	Program (IFAEE) 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	IFAEE1	Invite①: Prof. M. Kawakita	10:40-11:00	SPACC1	Invite①: Prof. M.Yamaguchi	IFAEE Chair: Prof. Imamura SPACC Chair: Prof. Amao
11:15-11:30	IFAEE2	Oral①: Prof. Y. Kimura	11:00-11:20	SPACC2	Invite②: Dr. V. Uahengo	
11:30-11:45	IFAEE3	Oral②: Prof. T. Sakamoto	11:20-11:40	SPACC3	Invite③: Prof. T. Yamaguchi	
11:45-12:00	IFAEE4	Oral③: Prof. A. Hirao	11:40-12:00	SPACC4	Invite④: Prof. H. Seino	
12:00-13:00		Lunch				
13:00-13:30	IFAEE5	Invite②: Prof. Y. Kenmochi	13:00-13:20	SPACC5	Invite⑤: Dr. M. Hirota	IFAEE Chair: Prof. Saika SPACC Chair: Prof. Akashi
13:30-13:45	IFAEE6	Oral④: Prof. S. Nagumo	13:20-13:40	SPACC6	Invite⑥: Prof. Y. Amao	
13:45-14:00	IFAEE7	Oral⑤: Prof. T. Okura	13:40-14:00	SPACC7	Invite⑦: Dr. Takamatsu	
14:00-14:15		Coffee Break				
14:15-14:45	IFAEE8	Invite③: Prof. T. Yamaguchi	14:15-14:35	SPACC8	Invite⑧: Prof. I. Kinoshita	IFAEE Chair: Prof. Akamatsu SPACC Chair: Prof. Nishioka
14:45-15:00	IFAEE9	Oral⑥: Prof. F. Oyama	14:35-14:55	SPACC9	Invite⑨: Prof. T. Nakano	
15:00-15:15	IFAEE10	Oral⑦: Profs. T. Muto, T. Shindou	14:55-15:15	SPACC10	Invite⑩: Prof. H. Akashi	
15:15-15:30	IFAEE11	Oral⑧: Prof. M. Kobayashi	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	IFAEE12	Invite④: Prof. K. Yamashita	16:30-16:50	SPACC12	Invite⑫: Prof. T. Onuma	IFAEE Chair: Prof. Okura Prof. Honda SPACC Chair: Prof. M. Yamaguchi
17:00-17:15	IFAEE13	Oral⑨: Prof. T. Saika	16:50-17:00		The rites of SPACC-awards	
17:15-17:30	IFAEE14	Oral⑩: Prof. F. Okada	17:00-17:30	SPACC13	SPACC-awards Lecture①: Prof. S. Ogura	
17:30-18:00	IFAEE15	Invite⑤: Prof. T. Matsuoka	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**

11:15-11:30 Y. Kimura
Kogakuin Univ., Japan

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

11:30-11:45 T. Sakamoto
Kogakuin Univ., Japan

IFAAEE4 **Study of Micro Electrode Forming Method**

11:45-12:00 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**

10:40-11:00 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**

11:00-11:20 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**

11:20-11:40 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

15:00-15:15

T. Muto and T. Shindou

Kogakuin Univ., Japan

IFAEE11 Environmentally Friendly Repeatable 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) ----

15:40-16:10 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

SPACCP2 10:05-10:10	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. Ogura ¹ ¹ Tokyo Institute of Technology, Japan, ² SBI Pharmaceuticals CO., LTD., Japan	10:40-12:30 Poster Session	Atrium
IFAEep1-3 10:10-10:15	Cocultivation of aerial microalgae and nitrogen-fixing bacteria on solid surface S. Sekiguchi, N. Aburai, and K. Abe Kogakuin Univ., Japan	IFAEep1-1	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
IFAEep2-3 10:15-10:20	Fabrication of ordered microstructure on III-V semiconductor by chemical etching with noble metal Y. Suzuki, H. Asoh, and S. Ono Kogakuin Univ., Japan	IFAEep1-2	Effect of Protecting Group in Reaction of Epoxy Alcohols with Organocopper Reagent S. Ushijima, N. Terayama, E. Yasui, and S. Nagumo Kogakuin Univ., Japan
IFAEep3-3 10:20-10:25	Particle classification using microfiltration membranes R. Makabe, K. Akamatsu, and S. Nakao Kogakuin Univ., Japan	IFAEep1-3	Cocultivation of aerial microalgae and nitrogen-fixing bacteria on solid surface S. Sekiguchi, N. Aburai, and K. Abe Kogakuin Univ., Japan
IFAEep4-3 10:25-10:30	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. Honda ¹ ¹ Kogakuin Univ., Japan, ² Tokyo National College of Technology, Japan, ³ Tokyo Univ. of Agriculture and Technology, Japan	IFAEep1-4	Synthetic study of Arenicolides M. Naitou, S. Sunagawa, E. Yasui, M. Miyashita, and S. Nagumo Kogakuin Univ., Japan
IFAEep5-3 10:30-10:35	Chitosan-Based Device for Radioisotope Removal Y. Watabe, ¹ N. Banzai, ¹ R. Yokosawa, M. Shiomi, ² and S. Brooke ² ^{1,2} Kogakuin Univ., Japan	IFAEep1-5	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
SPACCP3 10:35-10:40	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. Daniel ² ^{1,2} Univ. of Namibia, Namibia	IFAEep1-6	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
		IFAEep1-7	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

- 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) $_2$ O $_3$**
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 $_{0.5}$ O $_2$ 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 IDCAE**
 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

SPACCP15 Hydrogen production form formic acid with enzyme and the catalyst complex system

A. Kai¹ and Y. Amao^{2,3}

¹ Oita Univ., Japan, ² Osaka City Univ., Japan, ³ PRESTO, JST, Japan

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. Sato¹

¹ Kogakuin Univ., Japan, ² Tsurumi Univ., Japan

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. Hayakawa³

¹ Tsurumi Univ., Japan, ² Kogakuin Univ., Japan, ³ Tsurumi Univ., Japan

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. Sakakibara²

^{1,2} Kogakuin Univ., Japan

---- Lunch (12:30-14:00) ----

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 ・・・

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)

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)

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

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 laptop 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.