

March 3rd, Mon.

Plenary Lecture: 25min (Presentation) + 5min (Discussion)

Special Lecture: 25min (Presentation) + 5min (Discussion)

General Lecture: 10min (Presentation) + 5min (Discussion)

Poster Preview: 1min (Presentation)

**Plenary Lecture (9:30–10:00)**

- 1S-1 Current Status and Vision of Fullerene Business in Mitsubishi Corporation 1  
*Mikio Sasaki*

**General Lecture (10:00–10:45)**

**Fullerenes ▪ Endohedral metallofullerenes ▪ Applications of fullerenes**

- 1-1 Structural analysis of C<sub>60</sub> microtube-AAO membrane joint interfaces by FIB-SEM 9  
\* *Kun'ichi Miyazawa, Shuichi Shimomura, Takatsugu Wakahara, Masaru Tachibana*
- 1-2 Photoelectron Spectra of Encapsulated Mono-metal fullerenes 10  
\* *Takafumi Miyazaki, Yuuma Seino, Shoko Noda, Hajime Yagi, Hisanori Shinohara, Shojun Hino*
- 1-3 Organic Photovoltaic Device Characteristics using Fullerene Derivatives with a Thiophene Moiety 11  
\* *Tatsuya Hayashi, Heaseong Lee, Inseob Im, Seungjoo Lee, Jin Jang, Chyongjin Pac, Hiroshi Moriyama*

>>>>>>> Coffee Break (10:45–11:00) <<<<<<<<

**Special Lecture (11:00–11:30)**

- 1S-2 Critical factors in multi-walled carbon nanotubes in mesothelial carcinogenesis 2  
*Shinya Toyokuni*

**General Lecture (11:30–12:00)**

**Carbon nanoparticles ▪ Other topics**

- 1-4 Dispersion of detonation nanodiamond: A progress report 12  
\* *Shuichi Sasaki, Ryoko Yamanoi, Eiji Osawa*
- 1-5 Development of Ion Mobility System with Multi-stage Ion Trap 13  
\* *Toshiki Sugai, Yasuhiro Hiroshiba, Ninako Mikami, Ryota Jinnouchi*

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**Special Lecture (13:15–13:45)**

- 1S-3 Application of layered chalcogenide materials to the atomic-layer electronics 3  
*Keiji Ueno*

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**Applications of graphene ▪ Properties of graphene**

- 1-6 Vertical transport in meal/2D crystal/graphene layered heterostructures 14  
\* *Yoshihisa Inoue, Takehiro Yamaguchi, Sei Morikawa, Satoru Masubuchi, Kenji Watanabe, Takashi Taniguchi, Rai Moriya, Tomoki Machida*

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1-8	Effect of Band Nesting on Optical Properties in Two-dimensional Transition Metal Dichalcogenides <i>* Daichi Kozawa, Rajeev Sharma Kumar, Alexandra Carvalho, Amara Kiran Kumar, Weijie Zhao, Minglin Toh, Ricardo Mendes Ribeiro, Antonio H. Castro Neto, Kazunari Matsuda, Goki Eda</i>	16
1-9	Gate-controlled ultraviolet photo-etching of graphene edges <i>* Ryo Nouchi, Nobuhiko Mitoma, Morihiro Matsumoto</i>	17

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#### Poster Session (15:45–17:30) (★) Candidates for the Young Scientist Poster Award

##### Chemistry of fullerenes

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1P-2	Excited State Electronic Interactions in Push–Pull-Chromophore–[60]Fullerene Conjugates <i>* Michio Yamada, Francesca Tancini, Michael Sekita, Dirk M. Guldi, Mariza N. Alberti, W. Bernd Schweizer, François Diederich</i>	44

##### Applications of fullerenes

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☆ *\* Yuka Tsuboi, Daichi Kozawa, Yuhei Miyauchi, Shinichiro Mouri, Kazunari Matsuda*

>>>>>>> Coffee Break (17:30-18:00) <<<<<<<<

### Tutorial (18:00-19:30)

Electronics applications of carbon nanotube thin films  
*Yutaka Ohno*

March 4th, Tue.

Special Lecture: 25min (Presentation) + 5min (Discussion)

General Lecture: 10min (Presentation) + 5min (Discussion)

Poster Preview: 1min (Presentation)

**Special Lecture (9:00–9:30)**

- 2S-4 Structure and Property Controlled Growth of Single-Walled Carbon Nanotubes on Substrates 4  
\* Yan Li, Feng Yang, Xiaojun Qin, Fei Peng, Juan Yang

**General Lecture (9:30–10:30)**

**Formation and purification of nanotubes**

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\* Yohji Achiba, Takeshi Kodama, Kenro Hashimoto, Haruo Shiromaru

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**Special Lecture (10:45–11:15)**

- 2S-5 Interaction of carbon nanotube with water 5  
\* Yoshikazu Homma, Shohei Chiashi, Takahiro Yamamoto

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**Formation and purification of nanotubes • Properties of nanotubes • Applications of nanotubes**

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**Awards Ceremony (13:30–14:15)**

**Poster Preview (14:15–15:15)**

**Poster Session (15:15–17:00) (☆) Candidates for the Young Scientist Poster Award**

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☆ \* *Zhiyong Wang, Yusuke Nakanishi, Shoko Noda, Hiroyuki Niwa, Jinying Zhang, Ryo Kitaura, Hisanori Shinohara*

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\* *Pablo Solís-Fernández, Mark Bissett, Masaharu Tsuji, Hiroki Ago*

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☆ \* *Daichi Kozawa, Yuhei Miyauchi, Shinichiro Mouri, Masao Ichida, Kazunari Matsuda*
- 2P-48 Molecular dynamics simulation for water molecules between two graphene layers 140  
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\* *Yurika Abe, Hitomi Endo, Yohji Achiba, Haruo Shiromaru*
- 2P-50 Vibronic Interaction in the Forbidden Transition of Polyyne Molecules 142  
\* *Tomonari Wakabayashi*

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- 2S-6 Chemistry of Fullerene Epoxides: Structure and Nucleophilic Substitution-Addition Reactivity 6  
*Yusuke Tajima*

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#### Chemistry of fullerenes ▪ Applications of fullerenes ▪ Endohedral metallofullerenes

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\* *Ken Kokubo, Yu Yamazaki, Hiroyuki Masuda, Naohiko Ikuma*

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- 2-10 Spiro-acetalized and -thioacetalized [60]fullerene as efficient acceptor materials for bulk heterojunction solar cells 27  
\* *Tsubasa Mikie, Akinori Saeki, Hiroyuki Masuda, Naohiko Ikuma, Ken Kokubo, Shu Seki*
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\* *Shinobu Aoyagi, Kunihisa Sugimoto, Hiroshi Okada, Norihisa Hoshino, Tomoyuki Akutagawa*
- 2-12 Photoinduced Electron Transfer and Photoelectrochemical Properties of Supramolecular Complexes Composed of Lithium Ion-Encapsulated Fullerene and Porphyrinoids 29  
\* *Kei Ohkubo, Yuki Kawashima, Hayato Sakai, Taku Hasobe, Angela Sastre-Santos, Shunichi Fukuzumi*

March 5th, Wed.

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Special Lecture: 25min (Presentation) + 5min (Discussion)

General Lecture: 10min (Presentation) + 5min (Discussion)

Poster Preview: 1min (Presentation)

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- 3S-7 Floating catalyst CVD synthesis of SWNTs for thin film electronics applications 7  
*Esko I. Kauppinen*

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- 3-2 Carbon nanotube 3D current collectors for lightweight, high performance and low cost electrochemical capacitor electrodes 31  
*\* Ricardo Quintero, Dong Young Kim, Kei Hasegawa, Yuki Yamada, Atsuo Yamada, Suguru Noda*
- 3-3 Green, scalable, binderless fabrication of a single-wall carbon nanotube nonwoven fabric based on an ancient Japanese paper process 32  
*\* Kazufumi Kobashi, Tatsuya Hirabayashi, Seisuke Ata, Takeo Yamada, Don Futaba, Kenji Hata*

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*\* Daiyu Kondo, Haruhisa Nakano, Bo Zhou, Akiko I, Kenjiro Hayashi, Junichi Yamaguchi, Makoto Takahashi, Shintaro Sato, Naoki Yokoyama*
- 3-6 Graphene as a Material for Next Generation Fuel Cells 35  
*\* Stephen Lyth, Jianfeng Liu, Thomas Bayer, Sean Bishop, Kazunari Sasaki*
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*\* Shao-Wei Ma, Ya-Ping Hsieh*

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*\* Daiki Inaba, Kazuya Minami, Kyosuke Miyabe, Ryosuke Iida, Masahiro Kako, Yutaka Maeda, Michio Yamada, Tadashi Hasegawa, Takeshi Akasaka*

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