

September 7th, Wed.

Plenary Lecture: 40 min (Presentation) + 5 min (Discussion)

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

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

Poster Preview: 1 min (Presentation)

Plenary Lecture (10:00-10:45)

- 1S-1 Wafer-Scale Monodomain Films of Spontaneously Aligned Single-Wall Carbon Nanotubes
* Junichiro Kono

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General Lecture (10:45-11:30)

Properties of nanotubes • Applications of nanotubes

- 1-1 Optical Property of Carbon Nanotubes and Low Dimensional Atomic layer materials by using Circular Polarized light

* Riichiro Saito, Naomichi Sato, Yuki Tatsumi

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- 1-2 Control of photoluminescence properties of single-walled carbon nanotubes

* Yutaka Maeda, Yuya Takehana, Akane Nishino, Shun Minami, Michio Yamada, Mitsuaki Suzuki, Shigeru Nagase

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- 1-3 Application of carbon nanotubes as electrodes and doping methods in photovoltaics

* Il Jeon, Shigeo Maruyama, Yutaka Matsuo

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>>>>>> **Coffee Break (11:30-11:45)** <<<<<<<

General Lecture (11:45-12:30)

Applications of nanotubes • Graphene synthesis • Properties of graphene

- 1-4 Mechanically durable and stretchable micro-supercapacitors with elastomeric components harmonized with wearable field-effect transistors

* Fumiaki Tanaka, Atsuko Sekiguchi, Karolina Laszczyk, Kazufumi Kobashi, Shunsuke Sakurai, Don Futaba, Takeo Yamada, Kenji Hata

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- 1-5 Wafer-scale integration of suspended graphene nanoribbons and its growth mechanisms

* Hiroo Suzuki, Toshiro Kaneko, Yasushi Shibuta, Munekazu Ohno, Yuki Maekawa, Toshiaki Kato

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- 1-6 Direct observations of graphene and its oxide dispersed in solution

Yutaka Matsuno, Yu-uya Sato, Hikaru Sato, * Masahito Sano

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>>>>>> **Lunch Time (12:30-13:45)** <<<<<<<

Special Lecture (13:45-14:15)

- 1S-2 Growth and characterization of in-plane atomic layer heterostructures

* Yasumitsu Miyata

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General Lecture (14:15-15:15)

Atomic layers

- 1-7 Visualization of structural modulation in the charge density wave phase of 1T-TaSe₂ by scanning transmission electron microscopy

* Keita Kobayashi, Hidehiro Yasuda

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- 1-8 Polarity control of h-BN nanoribbons by uniaxial strain

* Ayaka Yamanaka, Susumu Okada

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- 1-9 Germanium Sulfide Photodetectors with High Photosensitivity and Broad Spectral Response
* *Dezhi Tan, Xiaofan Wang, Yuhei Miyauchi, Kazunari Matsuda* 17
- 1-10 Current jump and memory effect in MoS₂ transistor operated at high temperature
* *Tomoki Yamanaka, Masahiro Matsunaga, Ayaka Higuchi, Yuichi Ochiai, Guanchen He, Jonathan P. Bird, Nobuyuki Aoki* 18

>>>>>> **Coffee Break (15:15-15:30)** <<<<<<<

Special Lecture (15:30-16:00)

- 1S-3 Selection rules of optical excitations for single-walled carbon nanotubes
* *Hiroshi Ajiki* 3

General Lecture (16:00-16:45)

Atomic layers • Nanohorns • Nanowires

- 1-11 Strain Modulation of Electronic Properties in Hexagonal Boron-Nitride Atomic Layers
* *Yoshitaka Fujimoto, Susumu Saito* 19
- 1-12 Host-Guest Complexation of Cyclodextrins on Carbon Nanohorn Particles
* *Koji Harano, Junya Yamada, Akihito Kumamoto, Naoya Shibata, Eiichi Nakamura* 20
- 1-13 Dependence of the resistivity of carbon nanocoils on coil diameter
* *Yoshiyuki Suda, Yasushi Nakamura, Tamio Iida, Toru Harigai, Hirofumi Takikawa, Hitoshi Ue, Hiroyuki Shima* 21

Poster Preview (16:45-17:25)

Poster Session (17:25-19:00) (☆) Candidates for the Young Scientist Poster Award

Chemistry of fullerenes

- 1P-1 Preparation of gold nanoparticles stabilized by water-soluble fulleranol C₆₀(OH)₃₆
* *Nozomi Sato, Ken Kokubo, Hidehiro Sakurai* 43
- 1P-2 Thermal single electron transfer between C₆₀ and dienamines leading to pyrrolidinofullerenes via hydrogen shift of radical intermediates
* *Naohiko Ikuma, Hiroyuki Yamamoto, Ken Kokubo, Takumi Oshima* 44

Applications of fullerenes

- 1P-3 Availability of fullerene for skin photo-aging; Anti-inflammatory and suppression of carboxylated protein generation.
* *Hisae Aoshima, Masayuki Ito* 45
- 1P-4 Nanoscale Water Droplet Confined in Fullerene Bilayer Vesicles
☆ * *Sai Prakash Maddala, Tatsuya Homma, Ricardo Gorgoll, Koji Harano, Wasim Abuillan, Alexandra Burk, Motomu Tanaka, Eiichi Nakamura* 46

Endohedral metallofullerenes

- 1P-5 ESR measurements of Gd@C₆₀(CF₃)₃
* *Takahisa Yamaguchi, Ayano Nakagawa, Hisanori Shinohara, Ko Furukawa, Tatsuhisa Kato* 47

Fullerenes

- 1P-6 Electronic properties of PCBM under an external electric field
* *Sho Furutani, Susumu Okada* 48

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Properties of nanotubes

- 1P-7 Electronic states of chalcogen encapsulated in single-walled carbon nanotubes studied by First-Principles DFT Calculations
* Yutaka Sato, Yosuke Kataoka, Eita Yokokura, Hironori Ogata 49
- 1P-8 Bolometric performance of highly purified (6,5) Single Walled Carbon Nanotubes
Junko Eda, * Yohei Yomogida, Kazuhiro Yanagi 50
- 1P-9 Superconductivity in WS₂ chiral nanotube
☆ * Feng Qin, Wu Shi, Toshiya Ideue, Masaro Yoshida, Alla Zak, Reshef Tenne, Tomoka Kikitsu, Daishi Inoue, Daisuke Hashizume, Yoshihiro Iwasa 51
- 1P-10 The structural contribution to the electrical character of super-growth SWCNT forest through a height dependent study
* Takayuki Watanabe, Hiroe Kimura, Shigeki Hano, Shunsuke Sakurai, Motoo Yumura, Kenji Hata, Don Futaba 52

Applications of nanotubes

- 1P-11 Development of Air-stable n-type Thermoelectric Materials with Benzimidazole derivative-doped Single-walled Carbon Nanotubes
☆ * Yuki Nakashima, Tsuyohiko Fujigaya, Naotoshi Nakashima 53
- 1P-12 Fabrication of Multi-walled Carbon Nanotube / Polystyrene Compound Materials through Photo-induced Chemical Bond Formation
* Takuma Baba, Tomoya Takada 54
- 1P-13 Role of π -extended Aryl Crown Ethers in the Salt-induced Chemical n-type Doping of Single-walled Carbon Nanotubes
☆ * Tomohiro Ikeda, Yoshiyuki Nonoguchi, Tsuyoshi Kawai 55
- 1P-14 Improvement of Single-Walled Carbon Nanotube Cathodes for Perovskite Solar Cells
* Takahiro Sakaguchi, Hayato Kobayashi, Hiroki Suko, Takeshi Okochi, Taiki Inoue, Rong Xiang, Shohei Chiashi, Esko Kauppinen, Shigeo Maruyama 56
- 1P-15 Iron-Nitrogen-Doped Vertically Aligned Carbon Nanotube Electrocatalyst Synthesized through Instantaneous and Repetitive Pyrolysis for Oxygen Reduction Reaction
☆ * Yosuke Uchibori, Satoshi Yasuda, Kei Murakoshi 57

Formation and purification of nanotubes

- 1P-16 Synthesis of new-structured multi-walled carbon nanotubes inside silicon carbide nanotubes
* Tomitsugu Taguchi, Shunya Yamamoto, Hironori Ohba 58
- 1P-17 Purification of high purity semiconducting single-wall carbon nanotubes with a large diameter of 1.9 nm by gel filtration
☆ * Boanerges Thendie, Haruka Omachi, Jun Hirotani, Yutaka Ohno, Ryo Kitaura, Yasumitsu Miyata, Hisanori Shinohara 59
- 1P-18 Single-walled carbon nanotube synthesis using Ru catalysts by alcohol catalytic chemical vapor deposition in high vacuum
* Takayuki Fujii, Hoshimitsu Kiribayashi, Seigo Ogawa, Takahiro Saida, Shigeya Naritsuka, Takahiro Maruyama 60

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- 1P-19 Possible mechanism for selective separation of semiconducting single-walled carbon nanotubes
 ☆ * Keita Ozono, Fumiyuki Toshimitsu, Naotoshi Nakashima 61

Endohedral nanotubes

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 * Terunobu Nakanishi, Ryo Kitaura, Shoji Yoshida, Osamu Takeuchi, Hidemi Shigekawa, Hisanori Shinohara 62

Graphene synthesis

- 1P-21 Two-step growth of graphene directly grown on sapphire substrate by non-catalytic alcohol CVD
 * Yuki Ueda, Jumpei Yamada, Kyosuke Fujiwara, Daichi Yamamoto, Takahiro Maruyama, Shigeya Naritsuka 63
- 1P-22 CVD growth of graphene using boron nitride as growth templates
 ☆ * Shun Ogawa, Yu Kobayashi, Yutaka Maniwa, Yasumitsu Miyata 64

Applications of graphene

- 1P-23 Graphene FET of high photosensitivity using schottky diode between graphene and n-type silicon
 * Shiho Kobayashi, Yuki Anno, Kuniharu Takei, Takayuki Arie, Seiji Akita 65
- 1P-24 Catalytic properties of non-metal and platinum supported surface-modified nanocarbon materials
 * Hironori Ogata, Haruhiko Yoshitake, Yutaka Sato, Tomoaki Nishimura, Zhipeng Wang, Shingo Morimoto, Yoshio Hashimoto, Morinobu Endo 66
- 1P-25 Control of nonlinearity of suspended graphene resonator by standing of light
 * Taichi Inoue, Yuki Anno, Kuniharu Takei, Takayuki Arie, Seiji Akita 67
- 1P-26 All-graphene oxide device with tunable supercapacitor and battery behaviour by the working voltage
 ☆ * Chikako Ogata, Ruriko Kurogi, Kazuto Hatakeyama, Takaaki Taniguchi, Michio Koinuma, Yasumichi Matsumoto 68
- 1P-27 Suppression of Electrical Conductivity Deterioration of Cu Nanowire by Coating 2D-layered Materials
 * Nguyen Thanh Cuong, Susumu Okada 69
- 1P-28 Evaluation of the electrochemical capacitance of graphite oxide electrode prepared by the electrochemical oxidation/reduction cycle
 * Keisuke Awaya, Kazuto Hatakeyama, Michio Koinuma, Yasumichi Matsumoto 70

Properties of graphene

- 1P-29 Contrast mechanisms of the fluorescence microscopy that allows direct observations of nanocarbons in solution
 ☆ * Hikaru Sato, Yutaka Matsuno, Yu-uya Sato, Masahito Sano 71
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 * Michio Koinuma, Chikako Ogata, Yasumichi Matsumoto 72

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1P-34	Energetics and electronic structures of hexagonal GaN thin films and heterostructures ☆ * Yanlin Gao, Susumu Okada	76
1P-35	Formation of 1D confining potential in MoS ₂ /WS ₂ -based heterostructures * Yu Kobayashi, Shoji Yoshida, Ryuji Sakurada, Kengo Takashima, Takahiro Yamamoto, Tetsuki Saito, Satoru Konabe, Takashi Taniguchi, Kenji Watanabe, Yutaka Maniwa, samu Takeuchi, Hidemi Shigekawa, Yasumitsu Miyata	77
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Plenary Lecture: 40 min (Presentation) + 5 min (Discussion)

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

Award Nominee Lecture: 10 min (Presentation) + 10 min (Discussion)

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

Poster Preview: 1 min (Presentation)

Plenary Lecture (9:45-10:30)

- 2S-4 Growth of Single-Walled Carbon Nanotubes with Controlled Structure
* Jin Zhang

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General Lecture (10:30-11:15)

Properties of nanotubes • Formation and purification of nanotubes

- 2-1 Doping and electronic properties of BN nanotubes
* Susumu Saito, Yoshitaka Fujimoto

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- 2-2 Chirality selective synthesis of single-walled carbon nanotubes with sputtered Co-W catalyst and its possible mechanism
* Hua An, Rong Xiang, Hiroki Takezaki, Shinnosuke Ohyama, Yang Qian, Taiki Inoue, Shohei Chiashi, Shigeo Maruyama

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- 2-3 Development of new polymeric gels for the M/S separation of single-wall carbon nanotubes
* Guowei Wang, Xiaojun Wei, Atsushi Hirano, Shunjiro Fujii, Takeshi Tanaka, Hiromichi Kataura

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>>>>>> Coffee Break (11:15-11:30) <<<<<<<

Osawa Award Nominee Lecture (11:30-11:50)

- 2-4 Utilizing a caged electron spin of an endohedral metallofullerene for molecular location sensing
* Yuta Takano, Ryo Tashita, Mitsuaki Suzuki, Shigeru Nagase, Hiroshi Imahori, Takeshi Akasaka

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Iijima Award Nominee Lecture (11:50-12:30)

- 2-5 Evaluation of Enantiomeric Purity of Single-Wall Carbon Nanotubes using Flavin Mononucleotide
* Xiaojun Wei, Yohei Yomogida, Atsushi Hirano, Shunjiro Fujii, Takeshi Tanaka, Naomichi Sato, Riichiro Saito, Hiromichi Kataura

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- 2-6 Low temperature growth of ultra-high mass density carbon nanotube forests on conductive supports
* Hisashi Sugime, Santiago Esconjauregui, Lorenzo D'Arcié, John Robertson

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>>>>>> Lunch Time (12:30-13:45) <<<<<<<

Award Ceremony (13:45-14:00)

General Meeting of the FNTG Society (14:00-14:30)

Special Lecture (14:30-15:00)

- 2S-5 Super-Growth CVD: Past, Present, and Future
* Don Futaba

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General Lecture (15:00-15:45)

Applications of graphene

- 2-7 Hydrogenation properties of supported metal nanoparticles on graphene
* *Shigehito Isobe, Kengo Omori, Satoshi Yasuda* 28
- 2-8 Metal Phthalocyanine/Reduced Graphene Oxide Hybrid Electrocatalyst for cathodic Oxygen Reduction Reaction
* *Shinichi Murakami, Michio Koinuma, Yasumichi Matsumoto* 29
- 2-9 Oxygen reduction reaction catalyzed by copper-incorporated carbon electrocatalysts
* *Masaru Kato, Marika Muto, Ichizo Yagi* 30

>>>>>> Coffee Break (15:45-16:00) <<<<<<<

General Lecture (16:00-16:30)

Properties of graphene • Other topics

- 2-10 Novel Proton/Electron Mixed Conductor using Graphene Oxide
* *Kazuto Hatakeyama, Michio Koinuma, Tetsuya Kida, Shinya Hayami, Yasumichi Matsumoto* 31
- 2-11 Threshold shift of diamond electrolyte-solution gate field-effect transistor by anodic oxidation
* *Masafumi Inaba, Keisuke Igarashi, Takuro Naramura, Shuhei Abe, Masanobu Shibata, Yukihiro Shintani, Atsushi Hiraiwa, Hiroshi Kawarada* 32

Poster Preview (16:30-17:10)

Poster Session (17:10-18:45) (☆) Candidates for the Young Scientist Poster Award

Chemistry of fullerenes

- 2P-1 Synthesis and self-aggregation properties of various triazoliumfullerene
* *Toshihiko Okada, Saori Inaba, Naohiko Ikuma, Hidehiro Sakurai* 83
- 2P-2 Supramolecular Differentiation for Construction of Anisotropic C₆₀ Nanostructures by Time-Programmed Control of Interfacial Growth
☆ * *Kosuke Minami, Partha Bairi, Jonathan P. Hill, Waka Nakanishi, Lok Kumar Shrestha, Liu Chao, Koji Harano, Eiichi Nakamura, Katsuhiko Ariga* 84

Applications of fullerenes

- 2P-3 Enhancement of Fill Factor in Inverted Organic Solar Cells using Self-Assembled Monolayer of Fullerene Catechol
* *Il Jeon, Keisuke Ogumi, Takafumi Nakagawa, Yutaka Matsuo* 85
- 2P-4 Solid-State NMR Studies on the Aggregated Structures in Organic Bulk Heterojunction Solar Cells
* *Saki Kawano, Hironori Ogata* 86

Endohedral metallofullerenes

- 2P-5 Triplet state of molecular oxygen in open C₆₀
* *Azusa Kato, Tsukasa Futagoishi, Yasujiro Murata, Tatsuhisa Kato* 87

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Properties of nanotubes

2P-6	Interactions between carbon nanotubes and aromatic amino acids * <i>Atsushi Hirano, Kazuki Iwashita, Kentaro Shiraki, Shun Sakuraba, Tomoshi Kameda, Rieko Ishii, Takeshi Tanaka</i>	88
2P-7	Synthesis of local phenylboronic acid-modified single-walled carbon nanotubes and its PL behavior ☆ * <i>Hisashi Onitsuka, Tomohiro Shiraki, Naotoshi Nakashima</i>	89
2P-8	Geometries and electronic properties of MoS ₂ nanotube * <i>Shuntaro Oshima, Masayuki Toyoda, Susumu Saito</i>	90
2P-9	Theory of optimized power factor of low-dimensional semiconductors and application to semiconducting carbon nanotubes * <i>Nguyen Tuan Hung, Ahmad Ridwan Tresna Nugraha, Riichiro Saito</i>	91

Applications of nanotubes

2P-10	Effect of internal structure on the electrical performance of MWCNT-Cu wires ☆ * <i>Rajyashree Sundaram, Atsuko Sekiguchi, Takeo Yamada, Kenji Hata</i>	92
2P-11	Measurement of photoinduced force acting on polystyrene microsphere by carbon nanotube mechanical resonator * <i>Masaaki Yasuda, Kuniharu Takei, Takayuki Arie, Seiji Akita</i>	93
2P-12	Photothermoelectric properties of carbon nanotubes terahertz imagers and inspection applications ☆ * <i>Daichi Suzuki, Shunri Oda, Yukio Kawano</i>	94
2P-13	Flexible heater and temperature sensor for temperature range higher than 100 °C using multiwall carbon nanotube surface * <i>Daiki Kobayashi, Kuniharu Takei, Takayuki Arie, Seiji Akita</i>	95
2P-14	Novel method to detect dopamine with high sensitivity based on adsorption onto carbon nanotube ☆ * <i>Takuya Ushiyama, Shigeru Kishimoto, Yutaka Ohno</i>	96

Formation and purification of nanotubes

2P-15	Single-walled carbon nanotube synthesis by alcohol catalytic CVD in high vacuum using Rh catalysts * <i>Takahiro Maruyama, Akinari Kozawa, Takahiro Saida, Shigeya Naritsuka, Yoko Iizumi, Toshiya Okazaki, Sumio Iijima</i>	97
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2P-18	Control of catalyst surface states towards synthesis of single chirality single-walled carbon nanotubes using plasma CVD ☆ * <i>Bin Xu, Toshiro Kaneko, Toshiaki Kato</i>	100

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Endohedral nanotubes

- 2P-19 First-principles calculations of electronic states and solid state NMR parameters in alkali halides encapsulated single-walled carbon nanotubes
* Eita Yokokura, Yosuke Kataoka, Hironori Ogata 101

Graphene synthesis

- 2P-20 CVD growth of nitrogen doped multilayered graphene by mixing the melamine vapor to methane and their characterization
Takahiro Yoshida, Bun Tsuchiya, * Shunji Bandow 102
- 2P-21 Effect of crystallization of Ni catalyst on low-temperature direct-precipitation of multilayer graphene
* Jumpei Yamada, Yuki Ueda, Kyosuke Fujiwara, Daichi Yamamoto, Takahiro Maruyama, Shigeya Naritsuka 103

Applications of graphene

- 2P-22 Diffusion of Pt atoms on non-metallic atom-doped graphene support
* Syun Hasegawa, Yuji Kunisada, Norihito Sakaguchi 104
- 2P-23 Electrochemical characteristics of enzyme/graphene electrodes
* Noritoshi Nakagawa, Kouhei Yanai, Masahiro Hirano, Shinji Koh 105
- 2P-24 Electrochemical properties of CVD-grown monolayer graphene oxidized by UV/O₃ treatment
* Kouhei Yanai, Noritoshi Nakagawa, Shinji Koh 106
- 2P-25 The effect of graphene on growth and viability of bacteria and yeast
* Kyohei Mizobuchi, Noritoshi Nakagawa, Masahiro Hirano, Fumiyoshi Abe, Shinji Koh 107
- 2P-26 Edge-disorder effect on Id-Vg characteristics of GNR-FETs
☆ * Kengo Takashima, Takahiro Yamamoto 108

Properties of graphene

- 2P-27 Effect of metal nanoparticles on carrier accumulation in graphene under an electric field
* Manaho Matsubara, Susumu Okada 109
- 2P-28 Probing interface strain in graphene and boron nitride in-plane heterostructures
☆ * Shintaro Yoshimura, Yu Kobayashi, Shun Ogawa, Shogo Sasaki, Yutaka Maniwa, Yasumitsu Miyata 110
- 2P-29 Polarity and magnetism of rippled graphene with topological defect
* Mina Maruyama, Susumu Okada 111

Atomic layers

- 2P-30 Valley polarization mapping in transition metal dichalcogenides heterostructures
* Yusuke Hasegawa, Kazunari Matsuda, Yuhei Miyauchi, Shinichiro Mouri 112
- 2P-31 Photoluminescence properties of monolayer MoS₂ FETs fabricated by dry-transfer process
☆ * Wang Xiaofan, Yuhei Miyauchi, Kazunari Matsuda 113

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- 2P-32 Growth and characterization of monolayer $\text{Mo}_{1-x}\text{Re}_x\text{S}_2$ alloys
☆ * Shohei Mori, Shogo Sasaki, Yu Kobayashi, Liu Zheng, Shoji Yoshida, Takahiro Takeuchi, Hidemi Shigekawa, Kazutomo Suenaga, Yutaka Maniwa, Yasumitsu Miyata 114
- 2P-33 Anisotropic optical absorption and Raman spectra in GaTe with the interference effect of the substrates
* Yuki Tatsumi, Shengxi Huang, Xi Ling, Huaihong Guo, Teng Yang, Mildred S. Dresselhaus, Riichiro Saito 115
- 2P-34 Bandgap modulation of bilayer MoS_2 by electric field effect
☆ * Tetsuki Saito, Yu Kobayashi, Kenji Watanabe, Takashi Taniguchi, Yutaka Maniwa, Yasumitsu Miyata 116
- Nanowires**
- 2P-35 Growth of Diamond Nanocylinder Forest Using Template-Assisted Microwave Plasma Chemical Vapor Deposition
☆ * Wenxi Fei, Masafumi Inaba, Yu Hirano, Hideki Masuda, Hiroshi Kawarada 117
- Carbon nanoparticles**
- 2P-36 *In situ* synchrotron X-ray diffraction study of structural changes on neutron-irradiated highly oriented pyrolytic graphite under static high pressure and temperature
* Tomohiko Hisakuni, Shin-ichi Honda, Masahito Niibe, Mititaka Terasawa, Yuji Higo, Keisuke Niwase, Hirokazu Izumi, Eiji Taguchi, Tadao Iwata 118
- Bio**
- 2P-37 Upconversion photoluminescence imaging of carbon nanotubes in mice tissues
☆ * Saki Okudaira, Masako Yudasaka, Yoko Iizumi, Toshiya Okazaki, Kazunari Matuda, Yuhei Miyauchi 119
- Other topics**
- 2P-38 Thermal interface materials of vertically aligned carbon fibers embedded densely in polymer matrix
☆ * Ryo Yamada, Hisashi Sugime, Toshio Osawa, Suguru Noda 120
- Applications of graphene**
- 2P-39 Ultrathin graphene-based solar cells
Ya-Ping Hsieh, * Chin-Fu Chen, Mario Hofmann 121

Banquet (19:00-21:00)

2F, Tancho, Hotel Sapporo Garden Palace

September 9th, Fri.

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

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

Poster Preview: 1 min (Presentation)

Special Lecture (9:45-10:15)

- 3S-6 A Study about improving Safety of Carbon Nanotube - Development of Non-airborne type Carbon Nanotube -

* Hideyuki Hisashi

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General Lecture (10:15-11:00)

Properties of nanotubes • Applications of graphene

- 3-1 Optical Properties of Oxidized (6,5) Single-Wall Carbon Nanotubes

* Mari Ohfuchi, Yoshiyuki Miyamoto

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- 3-2 Graphene coated silver substrate for SERS with acid tolerance

* Seiya Suzuki, Masamichi Yoshimura

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- 3-3 A nanoporous graphene terahertz detector

* Juxian Li, Suzuki Daichi, Shunri Oda, Yoshikazu Ito, Fujita Takeshi, Yukio Kawano

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>>>>>> **Coffee Break (11:00-11:15)** <<<<<<<

Special Lecture (11:15-11:45)

- 3S-7 Carbon nanotube application and safety in artificial joints

* Naoto Saito

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General Lecture (11:45-12:30)

Properties of graphene

- 3-4 Synthesis and Photophysical Properties of Chemically Converted Graphene–Pyrene Linked Systems

* Tomokazu Umeyama, Jinseok Baek, Imahori Hiroshi

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- 3-5 Diazonium Chemistry for Tunable Grafting and Nanomanipulation

John Greenwood, Tomoko Inose, Yasuhiko Fujita, Oleksandr Ivasenko, Yoshito Tobe, Steven De Feyter, * Hiroshi Uji-I

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- 3-6 Graphene Nanoribbon Fabrication by Gate-Controlled Edge-Selective Photo-Oxidation

* Ryo Nouchi, Morihiro Matsumoto, Keiichiro Ikeda

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>>>>>> **Lunch Time (12:30-13:45)** <<<<<<<

Poster Preview (13:45-14:25)

Poster Session (14:25-16:00) (☆) Candidates for the Young Scientist Poster Award

Chemistry of fullerenes

- 3P-1 Preparation of methanofullerene derivatives: [70]PCBM and bis-[70]PCBM with high regioselectivity

* Takatoshi Ito, Yuta Inoue, Tetsuo Iwasawa, Fukashi Matsumoto, Toshiyuki Iwai, Kazuyuki Moriwaki, Yuko Takao, Takumi Mizuno, Toshinobu Ohno

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- 3P-2 Structure Determination of Saturn-Like Oligothiophene Macrocyclic with C₆₁H₂ and C₇₀

* Hiroshi Okada, Hideyuki Shimizu, Shinobu Aoyagi, Biao Zhou, Masahiko Iyoda, Yutaka Matsuo

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Applications of fullerenes

- 3P-3 Preparation of [C₆₀]Fullerene Nanowhisker-Silver Nanoparticle Composites and Their Catalytic Activity for Oxidation of Tetramethylbenzidine with Hydrogen Peroxide
* Jeong Won Ko, Weon Bae Ko 124
- 3P-4 Color tuning of semitransparent organic solar cells using oxide/metal/oxide transparent anode
* Shunjiro Fujii, Hiromichi Kataura 125

Endohedral metallofullerenes

- 3P-5 Isolation of a missing Fullerenes Gd@C_{2n} derivatives
☆ * Ayano Nakagawa, Shinobu Aoyagi, Haruka Omachi, Zhiyong Wang, Katsuma Ishino, Ryo Kitaura, and Hisanori Shinohara 126

Properties of nanotubes

- 3P-6 *In-situ* TEM study on structure and optical emission during Joule heating of a multiwall carbon nanotube
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