

September 13rd, Wed.

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

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

Poster Preview: 1min (Presentation)

Memorial Lecture: 25min (Presentation+Discussion)

Special Lecture (10:00–10:30)

- 1S-1 Fabrication of Gd-Nanodiamond Particles by Chemical Modification for Magnetic Resonance Imaging (MRI) Contrast Enhancement
* Terumitsu Hasebe, Tomohiro Matsumoto, Kosuke Tomita, Shunto Maegawa, Kenta Bito, Takako Nakamura

General Lecture (10:30–11:30)

Bio-Properties and formation of nanotubes

- 1-1 Near-Infrared Photoluminescent Carbon Nanotubes for Imaging Brown Fat
* Masako Yudasaka, Yohei Yomogida, Minfang Zhang, Takeshi Tanaka, Masako Nakahara, Norihiko Kobayashi, Yuko Okamatsu, Ken Machida, Kazuhiko Ishihara, Kumiko Saeki, Hiromichi Kataura
- 1-2 Fullerene-porphyrin-ferrocene linked molecule for optically-controlled intracellular electron transfer in mitochondria for targeted cancer cell death
* Yuta TAKANO, Reina MUNECHIKA, Vasudevan Pillai BIJU, Hideyoshi HARASHIMA, Yuma YAMADA, Hiroshi IMAHORI
- 1-3 The current densities and network structures visualization by lock-in thermography technique
* Takahiro Morimoto, Toshiya Okazaki
- 1-4 Characterization of structures and mechanical properties of carbon nanotube yarn exposed to actual space environment
* Motoyuki Karita, Yoku Inoue, Yasuhiro Fuchita, Takashi Hitomi, Yoji Ishikawa, Naoko Baba

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

General Lecture (11:45–12:30)

Formation and purification of nanotubes

- 1-5 Chirality control of single-walled carbon nanotubes with precise catalyst surface tuning using plasma CVD
* Bin Xu, Toshiro Kaneko, Yasushi Shibuta, Toshiaki Kato
- 1-6 The origin of chirality recognition at supramolecular sorting of single-walled carbon nanotubes using flavin analogues
* Fumiyuki Toshimitsu, Naotoshi Nakashima, Aleksandar Staykov
- 1-7 Growth of Horizontally Aligned Chirality-Specific SWNTs and TEM Study on W_6Co_7 Catalysts
* Feng Yang, Yan Li

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

Special Lecture (13:45–14:15)

- 1S-2 Epitaxial Graphene Quantum Dots on Periodic Steps of SiC
* Michiko Kusunoki

General Lecture (14:15–15:15)

Atomic Layers

- 1-8 Formation of long period structures in $TiSe_2$ by electron beam irradiation
* Keita Kobayashi, Hidehiro Yasuda

- 1-9 Growth and characterization of transition metal dichalcogenides using halide-assisted MOCVD
* Yu Kobayashi, Shoji Yoshida, Kota Murase, Naoya Okada, Toshifumi Irisawa, Yutaka Maniwa, Hidemi Shigekawa, Yasumitsu Miyata
- 1-10 Electronic structure and magnetic-state tuning of hBN nanoflakes by hole doping
* Mina Maruyama, Susumu Okada
- 1-11 Ultrafast Carrier Dynamics in Two-Dimensional Transition Metal Dichalcogenides
* Keisuke Shinokita, Xiaofan Wang, Yuhei Miyauchi, Kazunari Matsuda

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

Mildred S. Dresselhaus's Memorial Lecture (15:30-15:55)

1M-1

* Morinobu Endo

General Lecture (15:55-16:40)

Applications of nanotubes, Properties of graphene, Fullerenes

- 1-12 H₂-evolving SWCNT Photocatalysts for Effective Use of Solar Energy
* Yutaka Takaguchi, Noritake Murakami, Kango Ishimoto, Takumi Izawa, Kakeru Nishikawa, Ken Watanabe, Hideaki Miyake, Tomoyuki Tajima
- 1-13 Gas Adsorption Effects on Doped Graphene Monolayers for Sensor Applications: A First-Principles Study
* Yoshitaka Fujimoto, Susumu Saito
- 1-14 Japanese Ink inspired aqueous dispersion of carbon materials
* Kaito Ishido, Maya Kubo, Kazuki Nakamura, Kana Sasaki, Yuma Nakagawa, Tatsuhiko Yoshimura, Junpei Hayakawa

Poster Preview (16:40-17:20)

Poster Session (17:20-19:00) (★) Candidates for the Young Scientist Poster Award

Chemistry of fullerenes

- 1P-1 Self-assembly and Fluorescence Properties of [60]fullerene-pentacene Monoadducts
* Tomoyuki Tajima, Hideaki Miyake, Yutaka Takaguchi
- 1P-2 Encapsulation of an N=O Molecule inside an Open-Cage C₆₀ Derivative
* Shota Hasegawa, Naoki Murata, Yoshifumi Hashikawa, Michihisa Murata, Atsushi Wakamiya,
★ Yasujiro Murata

Applications of fullerenes

- 1P-3 Synthesis of cis-1 Tethered Fullerene Bis-adducts and Their Application to Polymer Solar Cells
* Shogo Takahara, Tomokazu Umeyama, Hiroshi Imahori
- 1P-4 Air-stable Perovskite solar cells using Li-containing fullerene salts as both dopant and anti-oxidant
* Il Jeon, Hiroshi Ueno, Seungju Seo, Ryosuke Nishikubo, Akinori Saeki, Hiroshi Okada, Shigeo Maruyama, Yutaka Matsuo

Properties of nanotubes

- 1P-5 Concentration Dependence of Resonance Raman Spectrum of Single-Chirality Single-Wall Carbon Nanotubes
* Xiaojun Wei, Mayumi Tsuzuki, Yohei Yomogida, Guowei Wang, Atsushi Hirano, Takeshi Tanaka, Hiromichi Kataura
- 1P-6 Numerical simulation of current fluctuations in metallic carbon nanotubes at room temperature
★ * Keisuke Ishizeki, Kenji Sasaoka, Satoru Konabe, Satofumi Souma, Takahiro Yamamoto
- 1P-7 Photophysical properties of porphyrin-oligoarylene-single-walled carbon nanotube linked systems
* Tomokazu Umeyama, Jinseok Baek, Hiroshi Imahori

- 1P-8 Chiral angle dependence of circular dichroism of carbon nanotubes
☆ * Naomichi Sato, Yuki Tatsumi, Riichiro Saito

Applications of nanotubes

- 1P-9 Fabrication and Photosensitizing Property of Single-Walled Carbon Nanotube/Dendrimer Nanohybrids
* Kango Ishimoto, Masahiro Yamagami, Tomoyuki Tajima, Hideaki Miyake, Yutaka Takaguchi
- 1P-10 Designing three-dimensional carbon Archimedean lattices for artificial muscle
☆ * Nguyen Tuan Hung, Ahmad Ridwan Tresna Nugraha, Riichiro Saito
- 1P-11 Carbon Nanotube as a Laser-Field Amplifier for Efficient Water Decomposition: A TDDFT Study
* Yoshiyuki Miyamoto, Hong Zhang, Xinlu Cheng, Angel Rubio
- 1P-12 Continuous Dispersion-Extraction Process of Carbon Nanotubes for High-Performance Transparent Conductive Films/Cells
☆ * Hiroyuki Shirae, Hisashi Sugime, Suguru Noda
- 1P-13 Gas pressure dependence of morphology of carbon nanotube filaments formed by gas discharge breakdown
* Seiji Funaki, Yuuki Mizushima, Hideki Sato
- 1P-14 Modeling of carbon nanotube thin film transistors and its application for circuit design including characteristic variations
☆ * Taiga Kashima, Tomoki Matsuura, Jun Hirotani, Shigeru Kishimoto, Yutaka Ohno
- 1P-15 Heterostructures of single-walled carbon nanotubes and hexagonal boron nitride by CVD and transfer
* Taiki Inoue, Rong Xiang, Shohei Chiashi, Shigeo Maruyama

Formation and purification of nanotubes

- 1P-16 Highly-crystalline growth of single-walled carbon nanotubes by extended alcohol catalytic chemical vapor deposition
* Bo Hou, Cheng Wu, Takahiro Morimoto, Toshiya Okazaki, Taiki Inoue, Shohei Chiashi, Rong Xiang, Shigeo Maruyama
- 1P-17 CO₂-assisted chemical vapor deposition for large-area synthesis of carbon nanotube arrays
☆ * Toshihiro Sato, Hisashi Sugime, Suguru Noda

Endohedral nanotubes

- 1P-18 Fabrication and Photosensitizing Property of Thiocarbonyl Dye-Encapsulated Carbon Nanotube/Fullerodendron Supermolecular Nanohybrids
* Kakeru Nishikawa, Noritake Murakami, Tomoyuki Tajima, Hideaki Miyake, Yutaka Takaguchi
- 1P-19 Local structures and properties of lead halide encapsulated in single-walled carbon nanotubes
* Hironori Ogata, Ryo Nagai, Yosuke Kataoka

Applications of graphene

- 1P-20 Epitaxial Growth of Nitride Semiconductors on Graphene
* Shingo Arakawa, Yuto Kubonaka, Kotomi Kuroda, Shinichiro Mouri, Tsutomu Araki, Yasushi Nanishi
- 1P-21 Atomistic Simulation of Edge-Roughness Effects on GNR-based FETs
☆ * Kengo Takashima, Takahiro Yamamoto
- 1P-22 Tuning graphene structures and electronic properties by Ion-beam irradiation
* Kosuke Nakamura, Tomoaki Nishimura, Kazuyuki Takai
- 1P-23 Study of condition of copper plating on graphene
* Kyosuke Fujiwara, Daichi Yamamoto, Jumpei Yamada, Yuki Ueda, Takahiro Maruyama, Shigeya Naritsuka

Properties of graphene

- 1P-24 Electronic structure of 2D hydrocarbon networks of sp^2 and sp^3 C atoms
* Yasumaru Fujii, Mina Maruyama, Katsunori Wakabayashi, Kyoko Nakada, Susumu Okada
- 1P-25 Tracing charge transfer dynamics at graphene/SiC(0001) interface
☆ * Takashi Someya, Hirokazu Fukidome, Susumu Yamamoto, Norifumi Endo, Takeshi Suzuki, Shoya Michimae, Mari Watanabe, Takashi Yamamoto, Masami Fujisawa, Teruto Kanai
- 1P-26 Effect of in-plane energization with heating on the electrical property of the graphene sheet
* Naoyuki Matsumoto, Masamitsu Nakagawa, Azusa Oshima, Motoo Yumura, Kenji Hata, Seiji Take, Don Futaba

Carbon nanoparticles

- 1P-27 Graphene quantum dots covalently functionalized with porphyrins
* Satoshi Mizuno, Tomokazu Umeyama, Hiroshi Imahori
- 1P-28 Anisotropic Precipitates from Detonation Nanodiamond Solutions through a Langmuir Monolayer of Fatty Acids
* Toshihiko Tanaka, Yasuhiro F.Miura, Takumi Sato, Eiji Osawa
- 1P-29 Polyynes molecules aligned inside a PVA film as the UV-Polarizing system
* Ryoike Sata, Takuya Chikayama, Yusuke Morisawa, Tomonari Wakabayashi

Atomic Layers

- 1P-30 Electric double layer light emitting diode of $WSe_2/MoSe_2$ in-plane heterostructures
* Yuhei Takaguchi, Jiang Pu, Yu Kobayashi, Taishi Takenobu, Yutaka Maniwa, Yasumitsu Miyata
- 1P-31 Multi-Layer Graphene Electrode for High Performance Flexible Single-Layer WS_2 and Its Application to Flexible Photodetector
☆ * Adha Sukma Aji, Hyun Goo Ji, Pablo Solís-Fernández, Kenjiro Fukuda, Hiroki Ago
- 1P-32 Optical properties of a van der Waals heterostructure of $MoSe_2$
* Shohei Higuchi, Takato Hotta, Mitsuhiro Okada, Yosuke Uchiyama, Keiji Ueno, Kenji Watanabe, Takashi Taniguchi, Hisanori Shinohara, Ryo Kitaura
- 1P-33 Large domain size synthesis of single crystal and monolayer WS_2 by rapid-cooling chemical vapor deposition
☆ * Chao Li, Toshiro Kaneko, Toshiaki Kato
- 1P-34 Optical properties of vertically stacked MoS_2-WSe_2 hybrid structure
* Hong En Lim, Yuhei Miyauchi, Kazunari Matsuda
- 1P-35 Crystalline quality evaluation of CVD-grown monolayer MoS_2 using photoluminescence imaging
☆ * Shun Ogawa, Hiroshi Shimizu, Yu Kobayashi, Takahiko Endo, Yutaka Maniwa, Yasumitsu Miyata
- 1P-36 Electronic properties of C-doped BN nanotubes: Band-structure engineering via inter-impurity interaction
* Susumu Saito, Yoshitaka Fujimoto

Bio

- 1P-37 Resolution assessment of macroscopic up-conversion photoluminescence imaging using carbon nanotubes
* Saki Okudaira, Yoko Iizumi, Toshiya Okazaki, Kazunari Matsuda, Yuhei Miyauchi
- 1P-38 Intramolecular Oxidation of Cysteine Residues of Proteins Using Single-Wall Carbon Nanotubes
* Atsushi Hirano, Tomoshi Kameda, Momoyo Wada, Takeshi Tanaka, Hiromichi Kataura

Other topics

- 1P-39 Selectivity of Single-Walled Carbon Nanotubes by using a Photo-reactive Dispersant
* Takato Toyama, Yoshitaka Yagi, Nobuyuki Ichikuni, Shigeru Takahara

1P-40 Hydrogen-Induced Epitaxial Growth and Effective Stitching of Monolayer Tungsten Disulfide
* Hyun Goo Ji, Yung-Chang Lin, Pablo Solis-Fernandez, Adha Sukma Aji, Kosuke Nagashio, Kazu Suenaga, Hiroki Ago

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September 14th, Thu.

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

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

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

Poster Preview: 1min (Presentation)

Memorial Lecture: 25min (Presentation+Discussion)

Special Lecture (9:45–10:15)

- 2S-3 Thermal Interface Materials using single-walled carbon-nanotubes will be put into practical use.
* Kohei Arakawa

General Lecture (10:15–10:45)

Formation, purification and properties of nanotubes

- 2-1 Selective Growth of Semiconducting Single-Wall Carbon Nanotubes Using SiC catalysts
* Min Cheng, Peng-Xiang Hou, Jin-Cheng Li, Feng Zhang, Chang Liu, Hui-Ming Cheng
- 2-2 Stabilities and electronic properties of MoSSe hetero-chalcogen nanotubes
* Shuntaro Oshima, Masayuki Toyoda, Susumu Saito

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

General Lecture (11:00–12:40)

Lecture of Osawa Award Nominee (11:00–11:20)

- 2-3 Selective functionalizations of fullerene based on the combination of organic and computational chemistry
* Naohiko Ikuma

Lectures of Iijima Award Nominees (11:20–12:40)

- 2-4 Chemistry-based functionalization of single-walled carbon nanotubes toward their photoluminescence property modulation
* Tomohiro Shiraki, Tomonari Shiraishi, Hisashi Onitsuka, Tamehito Shiga, Gergely Juhász, Naotoshi Nakashima
- 2-5 Nano-resolution X-ray microscope with carbon nanotube
* Masaru Irita, Shintarou Yamazaki, Hitoshi Nakahara, Yahachi Saito
- 2-6 Perovskite Solar Cells using Carbon Nanotubes as both Cathode and Anode Electrodes
* Il Jeon, Seungju Seo, Yuta Sato, Clement Delacou, Anton Anisimov, Kazu Suenaga, Esko I. Kauppinen, Shigeo Maruyama, Yutaka Matsuo
- 2-7 Direct Electroluminescence Imaging of Transition Metal Dichalcogenides
* Jiang Pu, Wenjin Zhang, Hirofumi Matsuoka, Yu Kobayashi, Yuhei Takaguchi, Yasumitsu Miyata, Lain-Jong Li, Kazunari Matsuda, Yuhei Miyauchi, Taishi Takenobu

>>>>>> Lunch Time (12:40–14:00) <<<<<<<<

Awards Ceremony (14:00–14:15)

General Meeting (14:15–14:45)

General Lecture (14:45–15:30)

Chemistry of fullerenes, Applications of graphene and nanotubes

- 2-8 Use of Fullerene Derivatives for Creating New Perovskite Solar Cells
* Yutaka Matsuo, Il Jeon, Hiroshi Ueno, Esko Kauppinen, Kazu Suenaga, Shigeo Maruyama
- 2-9 A Quinonoid–Imine–Enriched Nanostructured Polymer Mediator for Lithium–Sulfur Batteries
* Chen–Yu Chen , Hong–Jie Peng, Ting–Zheng Hou, Pei–Yan Zhai, Bo–Quan Li, Cheng Tang, Wancheng Zhu, Jia–Qi Huang, Qiang Zhang
- 2-10 Design of carbon nanotube–based non–noble metal catalyst for fuel cell
Jun Yang, Tao Jie, * Naotoshi Nakashima

>>>>>> Coffee Break (15:30–15:45) <<<<<<<<

Poster Preview (15:45–16:25)

Poster Session (16:25–18:00) (☆)Candidates for the Young Scientist Poster Award

Chemistry of fullerenes • Others

- 2P-1 Regioselective Enlargement of an Opening of Azafullerene Precursor
* Yoshifumi Hashikawa, Michihisa Murata, Atsushi Wakamiya, Yasujiro Murata
- 2P-2 Energetics and electronic structure of chemically decorated C₆₀ chains
* Sho Furutani, Susumu Okada
- 2P-3 Polymorphism of Cycloparaphenylene for Packing Structure–dependent Host–Guest Interaction
* Tomohiro Fukushima, Hirotohi Sakamoto, Kenichiro Itami
- 2P-4 Thermo–catalytic decomposition of methane for hydrogen production using carbon catalysts with different structures
* Haruki Nishii, Yoshito Umeda, Hiroaki Hamaguchi, Masashi Suzuki, Tsuyoshi Tanimoto, Toru Harigai, Hirofumi Takikawa, Yoshiyuki Suda

Endohedral metallofullerenes

- 2P-5 Synthesis, Characterization and Electrochemistry of Lithium Ion–Encapsulated Fluoreno[60]Fullerene
* Hiroshi Ueno, Hiroshi Okada, Shinobu Aoyagi, Yutaka Matsuo
- 2P-6 Synthesis of Fullerene Complexes Containing Iron and Chlorine Atoms by Arc Discharge
☆ * Yuri Tanuma, Seiji Hosoda, Takashi Uchida, Toru Maekawa

Properties of nanotubes

- 2P-7 Intersubband plasmons in gated and aligned single–wall carbon nanotubes
* Kazuhiro Yanagi, Yota Ichinose, Ryotaro Okada, Yohei Yomogida, Fumiya Katsutani, Weilu Gao, Junichiro Kono
- 2P-8 Modulation of Near–Infrared Photoluminescence of Carbon Nanotubes by Proximal Chemical Modification
☆ * Tomonari Shiraishi, Tomohiro Shiraki, Naotoshi Nakashima
- 2P-9 Single–wall carbon nanotube formed from multiwalled one by electrical breakdown and its electric properties studied by in situ TEM
* Kentaro Yamauchi, Koji Asaka, Hitoshi Nakahara, Yahachi Saito

Applications of nanotubes and Environmental/Safety characterization of nanomaterials

- 2P-10 SWCNT Photocatalyst for Hydrogen Production from Water upon Photoexcitation of (8,3)SWCNTs at 680–nm/1000–nm Light
* Noritake Murakami, Hideaki Miyake, Tomoyuki Tajima, Yuta Nishina, Wataru Kurashige, Yuichi Negishi, Yutaka Takaguchi
- 2P-11 Near–infrared optical thermometry using up–conversion photoluminescence of carbon nanotubes
☆ * Kengo Hachiya, Saki Okudaira, Yui Konno, Yutaka Maeda, Kazunari Matsuda, Yuhei Miyauchi

- 2P-12 Interface Engineering of Single-Walled Carbon Nanotube Cathode in Inverted Perovskite Solar Cells
* Seungju Seo, Shuhei Okawa, Taiki Inoue, Rong Xiang, Shohei Chiashi, Esko I. Kauppinen, Il Jeon, Yutaka Matsuo, Shigeo Maruyama
- 2P-13 Voltage generation by electrolyte droplet on carbon nanotube thin film: Significant enhancement of voltage
☆ * Ryohei Nishi, Shigeru Kishimoto, Hiromichi Kataura, Yutaka Ohno
- 2P-14 Uptake and biodegradation of CNTs by macrophage
* Minfang Zhang, Mei Yang, Yinmei Deng, Hideaki Nakajima, Masako Yudasaka, Sumio Iijima, Toshiya Okazaki
- 2P-15 Fabrication, structure, and properties of carbon nanotube forest metamaterials
☆ * Adam Pander, Keisuke Takano, Makoto Nakajima, Akimitsu Hatta, Hiroshi Furuta
- 2P-16 Z-Scheme Water Splitting using a Single-Walled Carbon Nanotube Photocatalyst and BiVO₄
* Takumi Izawa, Noritake Murakami, Daiki Miyamoto, Hideaki Miyake, Tomoyuki Tajima, Vit Kalousek, Keita Ikeue, Yutaka Takaguchi

Formation and purification of nanotubes

- 2P-17 Millimeter-Tall CNT Arrays Directly Grown on Aluminum Foils
☆ * Mayu Asaka, Shota Miura, Yu Yoshihara, Hisashi Sugime, Aun Ota, Hisayoshi Oshima, Suguru Noda
- 2P-18 Growth of Semiconducting (14,4) Carbon Nanotubes using W-Co Salts as Catalyst Precursor
* Xiulan Zhao, Feng Yang, Yan Li

Endohedral nanotubes

- 2P-19 An endohedral metallofullerene single-molecule magnet DySc₂N@C₈₀ encapsulated in single-walled carbon nanotube
* Ryo Nakanishi, Jyunya Satoh, Keiichi Katoh, Haitao Zhang, Haruka Omachi, Hisanori Shinohara, Masahiro Yamashita
- 2P-20 Geometries and Energetics of perylene encapsulated in carbon nanotubes
* Yuya Nagasawa, Takeshi Koyama, Susumu Okada
- 2P-21 Local structure and properties of polycyclic aromatic hydrocarbon molecule encapsulated in single-walled carbon nanotubes studied by molecular dynamics simulations
* Ryo Nagai, Takaaki Suzuki, Yosuke Kataoka, Hironori Ogata

Nanohorns

- 2P-22 Observation of Core Part in Fibrous Aggregates of Single-Walled Carbon Nanohorns
* Ryota Yuge, Fumiyuki Nihey, Kiyohiko Toyama, Masako Yudasaka

Applications of graphene

- 2P-23 Production of graphene quantum dots derived from various carbonaceous materials and characterization with PL mapping
* Hiroki Morita, Yudai Hoshino, Ryota Jinnouchi, Toshiki Sugai
- 2P-24 Thermoelectric Performance of Graphene/Organic Ferroelectrics Hybrid Materials in Simulation and Experiment
☆ * Hikaru Horii, Yutaro Fujisaki, Masahiro Ito, Yoichiro Hasizume, Takashi Nakajima, Satoru Konabe, Takahiro Yamamoto
- 2P-25 Photoresponse of graphene/n-type Si Schottky junction
* Shiho Kobayashi, Yuki Anno, Kuniharu Takei, Takayuki Arie, Seiji Akita
- 2P-26 Wafer-scale integration of suspended graphene nanoribbons for non-volatile optical memory application
☆ * Hiroo Suzuki, Toshiro Kaneko, Toshiaki Kato

Properties of graphene

- 2P-27 Electronic structures of N-doped graphene nanoribbons
* Airi Yasuma, Susumu Okada
- 2P-28 Ab Initio Calculations for the Interaction between Li Atom and Graphene with V_6 Defect
* Kento Shiota, Takazumi Kawai
- 2P-29 Intrinsic corrugation of graphene nanoribbon induced by the bond alternation
* Kazufumi Yoneyama, Ayaka Yamanaka, Susumu Okada

Atomic Layers

- 2P-30 Local structure control of $MoTe_2$ thin crystals using electric field-effect assisted near-field optical microscopy techniques
* Junji Nozaki, Hiroyuki Nishidome, Keiji Ueno, Yohei Yomogida, Kazuhiro Yanagi
- 2P-31 Optical studies of artificial 1L- WSe_2 /1L- $MoTe_2$ heterostructure
☆ * Takao Yamaoka, Hong En Lim, Sandhaya Koirala, Keisuke Shinokita, Yuhei Miyauchi, Kazunari Matsuda
- 2P-32 Thermal Conductivity of MoS_2 Based van der Waals Hetero Structure Evaluated by Raman Spectroscopy
* Shinichiro Mouri, Yasushi Nanishi, Tsutomu Araki
- 2P-33 The Effect of hydrazine adsorption on the optical phenomena in MoS_2
☆ * Naoko Kodama, Yasushi Ishiguro, Kazuyuki Takai
- 2P-34 Substrate and sample dependent exciton transport properties in monolayer transition metal dichalcogenides
* Wenjin Zhang, Alexander Hwang, Tetsuki Saito, Yu Kobayashi, Takashi Taniguchi, Kenji Watanabe, Yasumitsu Miyata, Kazunari Matsuda, Yuhei Miyauchi
- 2P-35 Growth and characterization of Re-doped MoS_2 monolayers
☆ * Shintaro Yoshimura, Yu Kobayashi, Naoya Okada, Toshifumi Irisawa, Yutaka Maniwa, Yasumitsu Miyata
- 2P-36 Fabrication and electronic properties characterization of hBN-encapsulated transition metal dichalcogenide devices
* Yosuke Uchiyama, Takato Hotta, Kenji Watanabe, Takashi Taniguchi, Keiji Ueno, Hisanori Shinohara, Ryo Kitaura
- 2P-37 Electroluminescence Imaging of Large-Area Transition Metal Dichalcogenide Light-emitting Diodes
☆ * Hirofumi Matsuoka, Lain-Jong Li, Jiang Pu, Taishi Takenobu

Bio

- 2P-38 Synthesis and evaluation of psoralen linked fullerene in vitro
* Akiko Hashimoto, Takeji Takamura-Enya
- 2P-39 Synthesis of carbon nanotube covered with cross-linked polymer post-modifiable by michael addition reaction for biomedical applications
☆ * Yukiko Nagai, Naotoshi Nakashima, Tsuyohiko Fujigaya
- 2P-40 Exfoliation of Hexagonal Boron Nitride Nanosheet with Chlorin e6 and Application of the Composite to Cancer Photodynamic Therapy
* Kyouhei Maruyama, Naoki Komatsu

Mildred S. Dresselhaus's Memorial Lecture (18:00-18:50)

2M-2

- * Riichiro Saito

2M-3

* Sumio Iijima

Banquet (19:00-21:00)

Cafe Restaurant Kihada

September 15th, Fri.

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

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

Poster Preview: 1min (Presentation)

Special Lecture (9:45–10:15)

- 3S-4 Synthesis of Doubly-Encapsulating Endohedral C₇₀
* Yasujiro Murata

General Lecture (10:15–11:00)

Applications of fullerenes and nanotubes, Chemistry of fullerenes

- 3-1 Conical Fullerene Amphiphiles Endowed with Micellization Ability but Lacking Air- and Oil-Water Interfacial Activity
* Koji Harano, Hirohisa Nitta, Mayuko Isomura, Ellen Backus, Mischa Bonn, Eiichi Nakamura
- 3-2 Mechanically Interlocked Single-Wall Carbon Nanotubes and its properties
* Alejandro López-Moreno, Emilio M. Pérez
- 3-3 Mono addition of curved π conjugated sumanene derivatives to C₆₀ fullerene and their self-assembling properties
* Akinobu Oya, Naohiko Ikuma, Yumi Yakiyama, Hidehiro Sakurai

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

Special Lecture (11:15–11:45)

- 3S-5 Biomimetic surface-catalysis driven growth of graphene nanoribbons
* Hiroshi Sakaguchi

General Lecture (11:45–12:30)

Other topics, Synthesis and properties of graphene

- 3-4 Development of Ion Trap Ion Mobility Measurement System and Characterization of Graphene Quantum Dots
Yudai Hoshino, Hiroki Morita, Ryota Jinnouchi, * Toshiki Sugai
- 3-5 Synthesis of large acenes towards low-bandgap graphene nanoribbons
* Hironobu Hayashi, Hiroko Yamada
- 3-6 Electrostatic potential properties of graphene nanoribbons under an external electric field
* Yanlin Gao, Susumu Okada

>>>>>> **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

Applications of fullerenes

- 3P-1 Diastereomer effects of β -[70]PCBM acceptors on device performances of polymer solar cells
* Kensho Igarashi, Tomokazu Umeyama, Hiroshi Imahori
- 3P-2 Laboratory Experiment on Space Propulsion using Negative Fullerene Ion Beam
☆ * Koda Daiki, Kuninaka Hitoshi

- 3P-3 Study of catalytic activity for reduction of 2-nitrophenol with [C₆₀]fullerene nanowhisker-silver nanoprism particle composites
* Jeong Won Ko, Weon Bae Ko

Properties of nanotubes

- 3P-4 Clarification of Contributions of Oxygen-containing Functional Groups and Structure Defects on Tuning Multi-walled Carbon Nanotube's Work Function
* Bo GONG, Akitoshi Ikematsu, Keiko Waki
- 3P-5 Effect of Initial Degree of Functionalization of Alkylated Single-Walled Carbon Nanotubes on Their Thermal Stability and Photoluminescence Properties
* Yutaka Maeda, Yuya Takehana, Jing-Shuang Dang, Mitsuaki Suzuki, Michio Yamada, Shigeru Nagase
- 3P-6 Direct mechanical strength measurements of structure-defined single-walled carbon nanotubes
☆ * Akira Takakura, Kou Beppu, Taishi Nishihara, Takahiro Kozeki, Takahiro Namazu, Yuhei Miyauchi, Kenichiro Itami
- 3P-7 Surface states of carbon nanopot -Ab initio study-
* Hiroyuki Yokoi

Applications of nanotubes

- 3P-8 Low-temperature Na Ion Battery Electrode Properties of Quinone Molecules Encapsulated in SWCNTs and Grafted on SWCNTs
* Shinji Kawasaki, Yosuke Ishii, Motoumi Nakamura, Canghao Li, Shunya Inayama
- 3P-9 Enhanced coercivity in carbon nanotubes filled with iron grown on oxidized Ni thin film
* Nozomi Iida, Hideki Sato, Yuji Fujiwara
- 3P-10 On-chip purification of semiconducting carbon nanotube arrays for high-performance transistors
☆ * Keigo Otsuka, Taiki Inoue, Shohei Chiashi, Shigeo Maruyama
- 3P-11 Fabrication of Photocathode Based on a Single-walled Carbon Nanotubes and Fullerodendron
* Ken Watanabe, Kiki Kuarniwan, Masashi Sumi, Tomoyuki Tajima, Yutaka Takaguchi
- 3P-12 Off resistivity evaluation of carbon nanotube electrolyte solution gate FETs
* Masafumi Inaba, Hiroshi Kawarada
- 3P-13 Effect of surface functionalization in carbon nanotube electrochemical sensors
☆ * Keita Nishimura, Shigeru Kishimoto, Yutaka Ohno
- 3P-14 Fabrication of transparent carbon nanotube layer on silane-coated glass utilizing UV-induced bond formation
* Yuichiro Kitamura, Tomoya Takada

Formation and purification of nanotubes

- 3P-15 One-pot synthesis of novel nanocalipers as a host molecule to extract DWNTs
* Yuya Miyake, Hiroyuki Muramatsu, Takuya Hayashi, Naoki Komatsu
- 3P-16 Concentration Dependence of Dextran Gels on Separation Performance of Single-Wall Carbon Nanotubes
☆ * Guowei Wang, Xiaojun Wei, Atsushi Hirano, Takeshi Tanaka, Hiromichi Kataura
- 3P-17 Time-dependent evolution of W-Co bimetallic catalyst during the selective synthesis of single-walled carbon nanotubes
* Hua An, Akihito Kumamoto, Taiki Inoue, Shohei Chiashi, Yuichi Ikuhara, Rong Xiang, Shigeo Maruyama
- 3P-18 Effect of annealing temperature of magnesia catalyst underlayer to the efficiency and selectivity of single wall carbon nanotube forest synthesis
☆ * Takashi Tsuji, Kenji Hata, Don Futaba, Shunsuke Sakurai

Graphene synthesis

- 3P-19 Direct precipitation growth of multilayer graphene using Ni-Au catalyst
* Jumpei Yamada, Yuki Ueda, Daichi Yamamoto, Kyosuke Fujiwara, Takahiro Maruyama, Shigeya Naritsuka
- 3P-20 Converting metal to graphene films on insulating substrates by reaction with CHCl_3
☆ * Kei Ohashi, Sachie Akiba, Hisashi Sugime, Toshio Osawa, Suguru Noda

Applications of graphene

- 3P-21 Carbon Nanotubes versus Graphene as Flexible Transparent Electrodes in Inverted Perovskite Solar Cells
* Il Jeon, Jungjin Yoon, Namyong Ahn, Clement Delacou, Anton Anisimov, Esko I. Kauppinen, Mansoo Choi, Shigeo Maruyama, Yutaka Matsuo
- 3P-22 Extremely high-density hole-carrier doping into graphene films by a boron-based oxidant
☆ * Kaito Kanahashi, Naoki Tanaka, Yoshiaki Shoji, Masatou Ishihara, Masataka Hasegawa, Hiromichi Ohta, Takanori Fukushima, Taishi Takenobu
- 3P-23 Interface Structure of molecule-adsorbed epitaxial graphene
Keisuke Nakamoto, * Kazuyuki Takai

Properties of graphene

- 3P-24 Energetics of Border between Graphene and h-BN
* Hisaki Sawahata, Ayaka Yamanaka, Mina Maruyama, Susumu Okada
- 3P-25 Optical Control of Weak Localization in Nanoporous Graphene
☆ * Takuya Okamoto, Yoshikazu Ito, Takeshi Fujita, Yukio Kawano
- 3P-26 Hydrogen termination of defects in graphene
* Yoshinori Obata, Kazuyuki Takai
- 3P-27 Geometric structures of Al nanoparticles adsorbed on graphene under an external electric field
* Manaho Matsubara, Susumu Okada

Atomic Layers

- 3P-28 Absorption spectra of atomic layer materials by Wannier function
* Toshiya Shirakura, Riichiro Saito
- 3P-29 Origin of photoluminescence peaks in WS_2/MoS_2 heterostructures
☆ * Tetsuki Saito, Yu Kobayashi, Kenji Watanabe, Takashi Taniguchi, Yutaka Maniwa, Yasumitsu Miyata
- 3P-30 Light-induced Electron Transfer in Supramolecular Nanocomposites Based on MoS_2 and Anthryl Dendron
Ryutaro Hirayama, Tomoyuki Tajima, Noritake Murakami, Kakeru Nishikawa, * Yutaka Takaguchi
- 3P-31 Relationship between reactivity and thickness in oxidation of phosphorene in water
* Haruya Okimoto, Yasunaga Tanno, Ryohei Sato, Masahito Sano
- 3P-32 Improvement of photoresponse time of MoS_2 phototransistor using Al_2O_3 buffer layer on gate insulator
☆ * Yuga Miyamoto, Daiki Yoshikawa, Kuniharu Takei, Takayuki Arie, Seiji Akita
- 3P-33 Metalorganic molecular beam epitaxy growth of a two-dimensional topological insulator: monolayer $1\text{T}'\text{-WTe}_2$
* Koki Terashima, Takato Hotta, Takuto Tokuda, Kenji Watanabe, Takashi Taniguchi, Hisanori Shinohara, Ryo Kitaura
- 3P-34 Diameter control of surfactant-wrapped WS_2 nanotubes through centrifugation
* Yohei Yomogida, Kazuhiro Yanagi

- 3P-35 Transport properties of CVD-grown monolayer MoS₂ crystals
☆ * Tomomi Uchida, Yu Kobayashi, Jiang Pu, Taishi Takenobu, Takahiko Endo, Yutaka Maniwa, Yasumitsu Miyata

Other topics

- 3P-36 Dispersing and photo-precipitation of single-walled carbon nanotubes by using photo-reactive dispersants
* Yuki Seki, Shigeru Takahara
- 3P-37 Comparison of durability of catalysts using various carbon supports for direct methanol fuel cells
* Kohei Kawasaki, Tsuyoshi Tanimoto, Toru Harigai, Hirofumi Takikawa, Toshiya Setaka, Yoshiyuki Suda
- 3P-38 Interface engineering enhanced photovoltaic performance of perovskite solar cells via incorporating a polymer layer
☆ * Fengjiu YANG, Hong En LIM, Mina JUNG, Yuhei MIYAUCHI, Atsushi WAKAMIYA, Yasujiro MURATA, Kazunari MATSUDA

Special Lecture (16:00-16:30)

- 3S-6 Non-covalent Functionalization of Carbon Nanotubes by Functional Polymers for Energy and Biotechnology Applications
* Tsuyohiko Fujigaya

General Lecture (16:30-17:00)

Formation and purification of nanotubes

- 3-7 Structure of Catalyst Underlayer Systems Suitable for an Efficient Synthesis of Vertically-Aligned Single-Walled Carbon Nanotube
* Shunsuke Sakurai, Takashi Tsuji, Maho Yamada, Kenji Hata, Don Futaba
- 3-8 Controlled Growth of Single-Wall Carbon Nanotubes with Uniform Structures by Catalysts design
* Feng Zhang, Peng-Xiang Hou, Chang Liu, Hui-Ming Cheng