

September 5, Wed.

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

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

Poster Preview: 1min (Presentation)

General Lecture (9:30-10:45)

Formation and Purification of Nanotubes • Properties of Nanotubes

- 1-1 Binary alloy effect on the chirality selection of carbon nanotubes
○Yohji Achiba, Takeshi Kodama, Kenro Hashimoto, Haruo Shiromaru, Toshiya Okazaki
- 1-2 Raman study on defects induced double walled carbon nanotube by X-ray irradiation
○Toshiya Murakami, Yuki Yamamoto, Kenji Kisoda, Chihiro Itoh
- 1-3 Electrochemical Iodine Doping of SWCNTs
○Shinji Kawasaki, Ha Yong Song, Ayar Alzubaidi, Yosuke Ishii, Takenobu Sakai
- 1-4 Selective Functionalization of Single-Walled Carbon Nanotubes
○Yutaka Maeda, Yuri Amagai, Junki Higo, Jun Matsui, Michio Yamada, Tadashi Hasegawa, Jing Lu, Shigeru Nagase, Takeshi Akasaka
- 1-5 Fabrication of nitrogen substituted single-walled carbon nanotubes by diffusion plasma reaction and their electrical transport properties
○Toshiaki Kato, Koshi Murakoshi, Makoto Akutsu, Rikizo Hatakeyama, Toshiro Kaneko

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

Special Lecture (11:00-11:30)

- 1S-1 Synthesis and Characterization of Carbon-Nanotube-Based Hybrid Materials
Toshiya Okazaki

General Lecture (11:30-12:30)

Chemistry of Fullerenes • Endohedral Metallofullerenes

- 1-6 Nucleophilic cycloadditions to C₇₀: Vibronic coupling density analysis for its reactivity
○Naoki Haruta, Tohru Sato, Kazuyoshi Tanaka
- 1-7 Thermodynamic Stability and Exohedral Derivatization of Hepta-Fullerene
○Wei-Wei Wang, Jing-Shuang Dang, Xiang Zhao
- 1-8 Electron Transfer Reduction of Li Ion Encapsulated Fullerene
Kei Ohkubo
- 1-9 Rapid Separation of Metallofullerenes by Titanium Chloride
○Kazuhiko Akiyama, Erina Takeuchi, Zhiyong Wang, Kazuki Chiba, Yusuke Nakanishi, Shoko Noda, Hisanori Shinohara

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

September 5, Wed.

General Lecture (13:45-14:30)

Applications of Fullerenes

- 1-10 Crystalline characteristics of fullerene doped GaAs layers grown by MBE
○*Jiro Nishinaga, Yoshiji Horikoshi*

- 1-11 Structural effect of fullerene derivatives with phosphonic ester in organic photovoltaic devices
○*Shogo Miura, Jaebuem Oh, Misun Ryu, Haeseong Lee, Jin Jang, Chyongjin Pac, Hiroshi Moriyama*

- 1-12 A New Generation of Cu-CMP Slurry using Water-Soluble Fullerenol
○*Ken Kokubo, Terutake Hayashi, Hiroki Tanada, Hideyuki Tachika, Hirotaka Kishida, Kazumasa Kano, Ryota Murai, Masaki Michihata, Takumi Oshima, Yasuhiro Takaya*

Special Lecture (14:30-15:00)

- 1S-2 Superconductivity proximate to antiferromagnetism in fullerene superconductors
Kosmas Prassides

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

General Lecture (15:15-16:15)

Applications of Graphene

- 1-13 Preparation and photophysical properties of chemically converted graphene covalently functionalized with porphyrins
○*Tomokazu Umeyama, Junya Mihara, Hiroshi Imahori*

- 1-14 Water-soluble graphene through polyglycerol grafting
○*Toku Yasuda, Li Zhao, Gang Liu, Shuji Aonuma, Takahide Kimura, Naoki Komatsu*

- 1-15 Utilizing graphene FET device for GHz transport and THz detection
○*Akram Mahjoub, T. Abe, Y. Iso, T. Ouchi, S. Suzuki, H. Fukuda, N. Aoki, K. Miyamoto, T. Omatsu, J. P. Bird, D. K. Ferry, K. Ishibashi, Y. Ochiai*

- 1-16 Synthesis of carbon nanosheet films from a solid carbon source and their applications to solar cell
○*Zhipeng Wang, Mao Shoji, Toshiyuki Ito, Hironori Ogata*

Special Lecture (16:15-16:45)

- 1S-3 Toward the creation of graphene terahertz lasers
Taiichi Otsuji

>>>>> Coffee Break (16:45-17:00) <<<<<

Poster Preview (17:00-17:50)

Poster Session (17:50-19:35) (☆)Candidates for the Young Scientist Poster Award

September 5, Wed.

Fullerenes

- 1P-1 Growth investigation of two-component fullerene nanowhiskers
○Chika Hirata, Shuichi Shimomura, Takatsugu Wakahara, Kunichi Miyazawa
- 1P-2 Simulation of Near-Infrared Excitation of Raman Active Modes in Fullerene C₆₀ by a
☆ Time-Dependent Adiabatic State Approach
○Kaoru Yamazaki, Takashi Nakamura, Naoyuki Niitsu, Manabu Kanno, Hirohiko Kono
- 1P-3 Theroretical investigation of the fragmentation dynamics of photoexcited C₆₀ fullerene
○Takashi Nakamura, Naoyuki Niitsu, Manabu Kanno, Hirohiko Kono, Kiyoshi Ueda
- 1P-4 Geometric and electronic structures of two-dimensional networks of fused C₂₆ fullerenes
☆ ○Mina Maruyama, Susumu Okada
- 1P-5 Charge density distribution of water molecule encapsulated in fullerene C₆₀
○Shinobu Aoyagi, Yuki Sado, Ryo Kitaura, Hisanori Shinohara, Tomoko Nishida, Yasujiro Murata
- 1P-6 Growth Mechanism of Fullerenes Revisited
○Susumu Saito

Chemistry of Fullerenes

- 1P-7 Fullerene Growth Mechanism and Regioselectivity of Dimeric Carbon Addition
○Jing-Shuang Dang, Wei-Wei Wang, Xiang Zhao
- 1P-8 FeCl₃-mediated retro-reaction of fullerene derivatives
○Masahiko Hashiguchi, Takao Ueno, Yutaka Matsuo
- 1P-9 Dual reactivity of azafulleroid due to its ambident n or pi-basicity
○Naohiko Ikuma, Yuta Doi, Tsubasa Mikie, Koji Nakagawa, Ken Kokubo, Takumi Oshima
- 1P-10 Theoretical investigation on vibrational excitation and reaction dynamics of polyhydroxy fullerene induced by a near-infrared laser
Akinobu Ikeda
- 1P-11 Highly Hydrophilic Non-Surface-Active Conical Fullerene Amphiphiles for Dispersion of
☆ Solid Materials
○Hirohisa Nitta, Koji Harano, Eiichi Nakamura
- 1P-12 Magic number effects on aggregation of polyhydroxylated fullerenes in alcohol-water binary solvent
○Yuji Nakamura, Hiroshi Ueno, Naohiko Ikuma, Ken Kokubo, Takumi Oshima
- 1P-13 Synthesis and Photophysical Properties of Fullerene-Cobalt Dyads and Triads
☆ ○Masashi Maruyama, Dirk M. Guldi, Eiichi Nakamura, Yutaka Matsuo
- 1P-14 Selective synthesis and molecular structure of alkoxyfullerenes. Substitution reaction of octabromofullerene with alcohol
○Uchiyama Kouya, Moriyama Hiroshi, Yoza Kenji

September 5, Wed.

Endohedral Metallofullerenes

- 1P-15 What causes the selectivity of the metallofullerene formation
○Yohji Achiba, Takeshi Kodama, Kenro Hashimoto, Haruo Shiromaru
- 1P-16 Synthesis of Carboxy Metallofullerenes for Medical Application
○Erina Takeuchi, Kazuhiko Akiyama, Youhei Kawabata, Shiro Kubuki
- 1P-17 Synthesis of Lithium-Encapsulated Fullerenol as Cation-Encapsulated Anion Nanoparticle
☆ ○Hiroshi Ueno, Yuji Nakamura, Naohiko Ikuma, Ken Kokubo, Takumi Oshima
- 1P-18 The Origin and Mechanism of Non-HPLC Rapid Separation of Metallofullerenes with Titanium Tetrachloride
○Zhiyong Wang, Yusuke Nakanishi, Shoko Noda, Kazuhiko Akiyama, Hisanori Shinohara
- 1P-19 Single-crystal X-ray structural analyses of a series of divalent Yb@C₈₂ isomers:
☆ Yb@Cs(6)-C₈₂, Yb@C₂(5)-C₈₂, Yb@C_{2v}(9)-C₈₂
○Mitsuaki Suzuki, Xing Lu, Zdenek Slanina, Naomi Mizorogi, Shigeru Nagase, Marilyn M. Olmstead, Alan L. Balch, Takeshi Akasaka
- 1P-20 Enhancement of nitrogen encapsulation into fullerene under control of plasma potential
○Soon. C. Cho, Rikizo Hatakeyama, Toshiro Kaneko
- 1P-21 Application of MCD Spectroscopy and TD-DFT to Endohedral Metallofullerenes. New Insights into Characterization of Their Electron Transitions
○Michio Yamada, Zdenek Slanina, Naomi Mizorogi, Atsuya Muranaka, Yutaka Maeda, Shigeru Nagase, Takeshi Akasaka, Nagao Kobayashi
- 1P-22 Fabrication of Li@C₆₀ Monolayer from [Li@C₆₀](PF₆) Salt
○Yoichi Yamada, Ken Tanaka, Masahiro Sasaki, Yasuhiko Kasama, Kazuhiko Kawachi, Seiji Sakai
- 1P-23 Characterization of Endohedral Lithium Metallofullerene Clusters
○Eunsang Kwon, Ken-ichirou Komatsu, Shin-ichi Okuda, Kazuhiko Kawachi, Yasuhiko Kasama, Tomoaki Endo

Applications of Fullerenes

- 1P-24 Fabrication and Solid State Properties of Fullerenol Nanostructures
○Baba Keisuke, Ito Toshiyuki, Ogata Hironori
- 1P-25 Templated Synthesis of Polymer Nanocapsules on Water-Soluble Fullerene Vesicles
☆ ○Ricardo Mizoguchi Gorgoll, Koji Harano, Eiichi Nakamura
- 1P-26 Photo Polymerization of Fullerene Thin Film Using Focused Optical Vortex
☆ ○Naoto Toriumi, Tatsuya Doi, Daiki Momiyama, Wataru Akiyama, Katsuhiko Miyamoto, Takashige Omatsu, Jonathan Bird, Nobuyuki Aoki, Yuichi Ochiai
- 1P-27 siRNA Delivery System Using Water-Soluble Amino-Fullerene Derivative
○Kosuke Minami, Koji Okamoto, Eisei Noiri, Koji Harano, Eiichi Nakamura

September 5, Wed.

Formation and Purification of Nanotubes

- 1P-28 From nanotweezers to nanocalipers - Selective extraction of SWNTs with larger diameters
○Naoki Komatsu, Gang Liu, Takahide Kimura
- 1P-29 A molecular dynamics simulation of SWNT growth by CVD method -- Octopus and VLS modes
○Shigeo Maruyama, Kaoru Hisama, Takuya Noguchi, Tomoya Kawasaki, Yuki Takaki, Junichiro Shiomi, Shohei Chiashi
- 1P-30 Catalyst Particle Array Formation Process Adjusted for Growth of Single-Walled Carbon Nanotube Forest with Different Structures
○Shunsuke Sakurai, Masayasu Inaguma, Don Futaba, Motoo Yumura, Kenji Hata
- 1P-31 Bottom-up synthesis of finite models of helical (n,m)-single-wall carbon nanotubes
☆ ○Shunpei Hitosugi, Waka Nakanishi, Takashi Yamasaki, Hiroyuki Isobe
- 1P-32 Purification of Single Wall Carbon Nanotubes by Formation of Aggregates Caused by Control of Alcohol Concentration
○Hideki Kawai, Kai Hasegawa, Masazumi Huziware, Shigeki Takeuchi, Hiromichi Kataura, Ryo Nakatsu, Kazuhiro Yanagi
- 1P-33 Dispersion of single-walled carbon nanotubes made by using ACCVD technique with porous glass
Yosuke Ito, ○Shinzo Suzuki, Hiroshi Nagasawa, Akira Ono, Yohji Achiba
- 1P-34 In situ NEXAFS Study on Carbon Nanotube Growth Process by Surface Decomposition of SiC
○Takahiro Maruyama, Yuki Ishiguro, Satoshi Sakakibara, Shigeya Naritsuka, Kenta Amemiya
- 1P-35 Carbon Nanotube Growth on ZnO(0001) Zn-face using Gas Source Method in High Vacuum
○Takeshi Kawai, Shigeya Naritsuka, Takahito Maruyama
- 1P-36 Low Temperature Growth of SWNTs on Pt catalyst by Alcohol Gas Source Method in High Vacuum
○Hiroki Kondo, Naoya Fukuoka, Ghosh Ranajit, Shigeya Naritsuka, Takahiro Maruyama, Sumio Iijima
- 1P-37 Effect of Growth Temperature on Growth Rate in Carbon Nanotube Formation by Surface Decomposition of SiC
○Takatoshi Yajima, Satoshi Sakakibara, Shigeya Naritsuka, Takahiro Maruyama
- 1P-38 Thermodynamics of the interaction of carbon nanotubes with hydrogels in SDS solutions.
☆ Toward understanding metal-semiconductor separation
○Hirano Atsushi, Takeshi Tanaka, Hiromichi Kataura
- 1P-39 Highly pure semiconducting single-wall carbon nanotubes obtained by stable electric-field-induced layer formation
☆ ○Fusako Sasaki, Kazuki Ihara, Takeshi Saito, Fumiyuki Nihey

September 5, Wed.

- 1P-40 A rosette cooling cell - more effective container for solubilization of single-walled carbon nanotubes under probe-type ultrasonic irradiation
○Yuta Kurabuchi, Tatsuki Yasumitsu, Gang Liu, Jean-Marc LeVêque, Shinji Aonuma, Laurent Duclaux, Naoki Komatsu
- 1P-41 The simplest separation of single-chirality carbon nanotubes by temperature-controlled gel chromatography
○Huaping LIU, Yasuko Urabe, Takeshi Tanaka, Hiromichi Kataura
- 1P-42 Evaluation of damage to SWCNTs during dispersion process in casein aqueous solution by using a wet-type super atomizer
○Tadashi Takashima, Daisuke Inoue, Yasushi Maeda, Shin Ono
- 1P-43 Stability of Nano-Diamonds as the Catalyst for CVD Growth of Single-Walled Carbon Nanotubes
○Takanori Umino, Kenta Nakamura, Taiki Inoue, Norihiro Hiramatsu, Shohei Chiashi, Yoshikazu Homma, Shigeo Maruyama
- 1P-44 Reaction analysis on CNT growth mechanism by eDIPS method using ¹³C carbon source
○Hirai Takayoshi, Hoshi Kazuaki, Kuwahara Yuki, Shibata Rena, Masaharu Kiyomiya, Nakano Shun, Saito Takeshi
- 1P-45 Growth of Horizontally Aligned Single Walled Carbon Nanotubes - Effect of Catalyst Preparation and Crystal Quartz Surface
○Taiki Inoue, Grace Meikle, Saifullah Badar, Daisuke Hasegawa, Shohei Chiashi, Shigeo Maruyama
- 1P-46 ☆ Pulse plasma CVD for mass production of narrow-chirality distributed single-walled carbon nanotubes
○Koshi Murakoshi, Toshiaki Kato, Rikizo Hatakeyama, Toshiro Kaneko
- 1P-47 Separation of ultra-long single-wall carbon nanotubes using glass beads filtration
○Hiromichi Kataura, Mayumi Tsuzuki, Shunjiro Fujii, Takeshi Tanaka
- 1P-48 Synthesis of carbon nanomaterials using metallic nanoparticles as catalysts
○Balachandran Jeyadevan, Yukihiro Osada, Yoshinori Sato, Yuuki Sunayama

Nanohorns

- 1P-49 The effect of CNHs absorbed simvastatin on bone regeneration
○Akiko Yamauchi, Sachiko Matsumura, Tadashi Iizuka, Kiyotaka Shiba, Masako Yudasaka, Sumio Iijima, Atsuro Yokoyama

Environmental / Safety Characterization of Nanomaterials

- 1P-50 Biodistribution and biocompatibility of water-soluble carbon nanotubes
○Shigeaki Abe, Sachiko Itoh, Toshihisa Kobayashi, Takayuki Kiba, Tsukasa Akasaka, Yasutaka Yawaka, Shin-Ichiro Sato, Motohito Uo, Fumio Watari, Daisuke Hayashi, Tomoya Takada

September 6, Thu.

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

General Lecture by Candidates for Osawa Award and Iijima Award

: 10min (Presentation) + 10min (Discussion)

Poster Preview: 1min (Presentation)

General Lecture by Candidates for the Osawa Award (9:00-10:20)

- 2-1 Synthesis of Endohedral Fullerene C₆₀ Encapsulating a Single Molecule of Water
Kei Kurotobi, Yasujiro Murata
- 2-2 Chemistry of Cation-Endohedral Fullerene: [Li⁺@C₆₀]
Hiroshi Okada, Masashi Maruyama, Takashi Komuro, Takahito Watanabe, Yasuhiko Kasama, Hiromi Tobita, Yutaka Matsuo
- 2-3 Establishment of intra-molecular electron accepting and donating systems based on endohedral metallofullerenes
Yuta Takano, Naomi Mizorogi, M. Angeles Herranz, Nazario Martin, Dirk M. Guldi, Shigeru Nagase, Takeshi Akasaka
- 2-4 Room Temperature Observation of Single-Electron Tunneling via Fullerene Quantum Dots in a Si-based Device Structure
Ryoma Hayakawa, Chikyow Toyohiro, Yutaka Wakayama

General Lecture by Candidates for the Iijima Award (10:20-11:00)

- 2-5 A patternable CNT-Cu composite possessing hundred-times higher electrical current-carrying-capacity than metals
Chandramouli Subramaniam, Takeo Yamada, Don Futaba, Motoo Yumura, Kenji Hata
- 2-6 Effect of Mechanical Strain on Polycrystalline Graphene
Mark Bissett, Wataru Izumida, Riichiro Saito, Hiroki Ago

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

Plenary Lecture (11:15-12:00)

- 2S-4 Carbon nanotube field effect transistors with graphene contacts
Takashi Mizutani

> > > > > Lunch Time (12:00-13:00) < < < < <

Young Scientist Poster Award Ceremony (13:00-13:15)

General Meeting (13:15-13:45)

September 6, Thu.

Poster Preview (13:45-14:25)

Poster Session (14:25-16:10) () Candidates for the Young Scientist Poster Award

Properties of Nanotubes

- 2P-1 Temperature Dependence of Photoluminescence Spectra in Hole-Doped Single-Walled Carbon Nanotubes
Shinichiro Mouri, Munechiyo Iwamura, Naoto, Akizuki, Yuhei Miyauchi, Kazunari Matsuda
- 2P-2 Aggregation and agglomeration evaluation of dispersed carbon nanotubes
Takeshi Eitoku, Masayoshi Tange, Haruhisa Kato, Toshiya Okazaki
- 2P-3 Effects of Water Vapor on RBM of Single-Walled Carbon Nanotubes
Naoki Homma, Shintaro Sato, Shouhei Chiashi, Yoshikazu Homma, Takahiro Yamamoto
- 2P-4 Evaluation of Functionalized Single-Walled Carbon Nanotubes by X-ray Photoelectron Spectroscopy
Hiroyuki Nii, Syunsuke Noguchi, Ken-ichi Hongyou, Hamazo Nakagawa
- 2P-5 Tilting of Dirac cones and vernier spectrum in finite-length metallic single-wall carbon nanotubes
Wataru Izumida, Yuki Tatsumi, Riichiro Saito
- 2P-6 Theory of Electronic Raman Scattering in Metallic Single-Wall Carbon Nanotubes
Eddwi Hasdeo, Ahmad Nugraha, Kentaro Sato, Riichiro Saito
- 2P-7 Excitonic effects on coherent phonons in single wall carbon nanotubes
Ahmad Ridwan Tresna Nugraha, Gary Sanders, Christopher Stanton, Riichiro Saito
- 2P-8 Thermoelectric Power of Metallic and Semiconducting Single-Wall Carbon Nanotube Buckypaper
Honda Kazuya, Yusuke Nakai, Kazuhiro Yanagi, Yutaka Maniwa
- 2P-9 Electrostatic Potential of Hydrogenated Finite-length Carbon Nanotubes under an Electric Field
Ayaka Yamanaka, Susumu Okada
- 2P-10 Analysis of Operation Mechanisms of SWNT Network Field-Effect Transistors Studied via Scanning Gate Microscopy
Masahiro Matsunaga, Xiaojun Wei, Kenji Maeda, Tatsurou Yahagi, Kazuaki Tanaka, Jonathan Bird, Koji Ishibashi, Yuichi Ochiai, Nobuyuki Aoki
- 2P-11 Photoluminescence Excitation Spectroscopy of Carrier-Doped Single-Walled Carbon Nanotubes
Akizuki Naoto, Munechiyo Iwamura, Shinichiro Mouri, Yuhei Miyauchi, Kazunari Matsuda
- 2P-12 Coherent AC Transport in Metallic Carbon Nanotubes with Disorder
Daisuke Hirai, Takahiro Yamamoto, Satoshi Watanabe

September 6, Thu.

- 2P-13 Electronic States in Flattened Carbon Nanotubes with Effective-Mass Approximation
Takeshi Nakanishi, Tsuneya Ando
- 2P-14 Optical properties of ultrathin single-wall carbon nanotubes
Toshiya Nakamura, Yasumitsu Miyata, Eri Inukai, Ryo Kitaura, Hiromichi Kataura, Hisanori Shinohara
- 2P-15 Non-Linear and Non-Planar Free Thermal Vibration of Single-Walled Carbon Nanotubes in Molecular Dynamic Simulation
Heeyuen Koh, James Cannon, Shohei Chiashi, Junichiro Shiomi, Shigeo Maruyama
- 2P-16 Electrical current behavior at CNT-SiC interface
Masafumi Inaba, Megumi Shibuya, Kazuyoshi Oohara, Takumi Ochiai, Yoshiho Masuda, Atsushi Hiraiwa, Michiko Kusunoki, Hiroshi Kawarada
- 2P-17 Raman Imaging Spectroscopy of Horizontally Aligned Single-Walled Carbon Nanotubes on Crystal Quartz
Saifullah Badar, Daisuke Hasegawa, Taiki Inoue, Shohei Chiashi, Shigeo Maruyama
- 2P-18 Fabrication and characterization of individually suspended DWCNTs
Tomoya Kitagawa, Ryo Kitaura, Yuhei Miyauchi, Yasumitsu Miyata, Kazunari Matsuda, Hisanori Shinohara
- 2P-19 Crystal structure analysis of MWNT forests
Hiroshi Furuta, Akimitsu Hatta

Applications of Nanotubes

- 2P-20 Photovoltaic Properties of Single-Walled Carbon Nanotube-Silicon Heterojunction Solar Cells
Daichi Kozawa, Kazushi Hiraoka, Yuhei Miyauchi, Shinichiro Mouri, Kazunari Matsuda
- 2P-21 Micro-fabrication of stretchable and robust interconnects of conductive CNT rubber on a stretchable substrate
Atsuko Sekiguchi, Tekao Yamada, Kazufumi Kobashi, Motoo Yumura, Kenji Hata
- 2P-22 Optimizing dispersion structure of SWNT for high electrically-conductive rubber composites
Howon Yoon, Motoi Yamashita, Seisuke Ata, Motoo Yumura, Kenji Hata
- 2P-23 Super-Growth SWNT-rubber composite with extruder for commercial applications
Seisuke Ata, Takaaki Mizuno, Howon Yoon, Motoo Yumura, Kenji Hata
- 2P-24 Ion-Gel Transistors on Thick Films in a Single Chiral State
Hikaru Kudo, Yuki Nobusa, Hiromichi Hiromichi, Taishi Takenobu, Kazuhiro Yanagi
- 2P-25 Synthesis and Electrical Conductivity of Polymer/CNT Composite Using the Reaction Injection Molding (RIM) Method
The Ban Hoang, Masahiro Shigeta, Mitsugu Uejima

September 6, Thu.

- 2P-26 Fabrication of biotin-labeled double-walled carbon nanotubes for a specific biosensor
Nagaya Yuka, Kuno Akihiro, Tsuchiya Koji, Yajima Hirofumi
- 2P-27 Labeling of mannose to acid-treated double-walled carbon nanotubes for a sensitive and specific biosensor
Takesue Shuhei, Kuno Akihiro, Tsuchiya Koji, Yajima Hirofumi
- 2P-28 Formation of homogeneous and high density thin-film of single-wall carbon nanotube by dip coating
Maki Shimizu, Shunjiro Fujii, Takeshi Tanaka, Hiromichi Kataura
- 2P-29 Conduction-Type Control of Carbon Nanotube Field-Effect Transistors by Pd and Ti Overlayer Doping
Satoshi Ishii, Masato Tamaoki, Shigeru Kishimoto, Takashi Mizutani
- 2P-30 Switchable thermal conductivity enhancement of phase change composites with single walled carbon nanotube inclusions
Sivasankaran Harish, Kei Ishikawa, Taiki Inoue, Shohei Chiashi, Junichiro Shiomi, Shigeo Maruyama
- 2P-31 In-situ transmission electron microscopy study on electric properties of a junction between a gold nanoparticle and carbon nanotubes
Motoyuki Karita, Koji Asaka, Hitoshi Nakahara, Yahachi Saito
- 2P-32 Synthesis of carbon nanotubes conjugated with distance-controlled nanoparticles using gas-liquid interfacial plasmas
Toshiro Kaneko, Qiang Chen, Rikizo Hatakeyama
- 2P-33 Electrochemical durability of single-wall carbon nanotube electrode against anodic oxidation in water
Shigekazu Ohmori, Takeshi Saito
- 2P-34 Patterned Carbon Nanotubes Thin Films Fabricated by Polystyrene-Nanosphere Templating
Yuki Kuwahara, Takayoshi Hirai, Takeshi Saito
- 2P-35 Fabrication of stable p-n junction diode with Cs encapsulated single-walled carbon nanotubes
Yoshihiro Abiko, Toshiaki Kato, Rikizo Hatakeyama, Toshiro Kaneko
- 2P-36 Nanotube-Based Self-Standing Carbon Films for Supercapacitors
Ricardo Quintero, Dong Young Kim, Kei Hasegawa, Yuki Yamada, Atsuo Yamada, Suguru Noda
- 2P-37 Controlled Functionalization of Carbon Nanotubes with Antibody
Yoko Iizumi, Toshiya Okazaki, Yuzuru Ikehara, Mutsuo Ogura, Masako Yudasaka
- 2P-38 Selective Extraction of Semiconducting Single-Walled Carbon Nanotubes by Fulleredendrons
Hironori Suzuki, Toshiya Okazaki, Yoko Iizumi, Masayoshi Tange, Takaaki Wada, Tomoyuki Tajima, Yutaka Takaguchi, Sumio Iijima

September 6, Thu.

- 2P-39 Fabrication and properties of chemically doped semiconducting single-walled carbon nanotubes/Si heterojunction diodes
Mao Shoji, Atsushi Nakano, Hironori Ogata
- 2P-40 Structural deformation of functionalized multi-walled carbon nanotubes in the macrophage of rat subcutaneous soft tissue over long time
Yoshinori Sato, Atsuro Yokoyama, Eiko Nakazawa, Minfang Zhang, Masako Yudasaka, Kenichi Motomiya, Kazuyuki Tohji
- 2P-41 Ultrathin aligned CNTs film by combining AC electric field with liquid flow
Jun Matsui, Shigeru Kaida, Tokuji Miyashita

Forum (16:10-18:30)

Safety • Security Society and Nano Science • Technology

(Field investigation of the Great East Japan Earthquake included)

September 7, Fri.

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

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

Poster Preview: 1min (Presentation)

General Lecture (9:00-10:15)

Formation and Purification of Nanotubes • Applications of Nanotubes • Endohedral Nanotubes

- 3-1 Properties of Single Wall Carbon Nanotube Aggregates Formed by Vapor Diffusion Methods
Kazuhiro Yanagi, Hideki Kawai, Hikaru Kudo, Kai Hasegawa, Hiromichi Kataura, Ryo Nakatzu
- 3-2 Effects of the Defective Structures for Carbon Nanotube on the Antidegradation and Electrical Conductivity of Rubber Composites
Tomoya Nagaoka, Koji Tsuchiya, Yoshiyuki Takahashi, Hirofumi Yajima
- 3-3 Fabrication and applications of carbon nanotube-alumina composite
Mamoru Omori, Go Yamamoto, Keiichi Shirasu, Toshiyuki Hashida
- 3-4 Fabrication of flexible bulk-heterojunction organic solar cells using single-wall carbon nanotube thin films as transparent conducting anodes
Shunjiro Fujii, Takeshi Tanaka, Satoko Nishiyama, Hiromichi Kataura
- 3-5 Thin single-walled boron nitride nanotubes synthesized in single-wall carbon nanotubes
Ryo Nakanishi, Ryo Kitaura, Yuta Yamamoto, Shigeo Arai, Jamie H. Warner, Yasumitsu Miyata, Hisanori Shinohara

> > > > Coffee Break (10:15-10:30) < < < < <

General Lecture (10:30-11:30)

Properties of Nanotubes

- 3-6 Optical properties of small-diameter carbon nanotubes
Takashi Koretsune, Susumu Saito
- 3-7 Photoluminescence Spectroscopy of Oxygen-doped Carbon Nanotubes
Munechiyo Iwamura, Yuhei Miyauchi, Shinichiro Mouri, Tadashi Kawazoe, Motoichi Ohtsu, Kazunari Matsuda
- 3-8 Photocurrents with multiple exciton generation in single walled carbon nanotubes
Satoru Konabe, Susumu Okada
- 3-9 Diameter reduction of SWNTs by nitrogen incorporation and encapsulation of a one-dimensional nitrogen gas
Theerapol Thurakitserree, Christian Kramberger, Heeyuen Koh, Yudai Izumi, Toyohiko Kinoshita, Takayuki Muro, Shohei Chiashi, Erik Einarsson, Shigeo Maruyama

September 7, Fri.

Special Lecture (11:30-12:00)

- 3S-5 Plasma processing of carbon-based nanomaterials
R. Mohan Sankaran

> > > > > **Lunch Time (12:00-13:15)** < < < < <

General Lecture (13:15-14:45)

Properties of Graphene

- 3-10 Numerical study of edge states in zigzag BCtwoN nanoribbons
Kikuo Harigaya, Tomoaki Kaneko
- 3-11 G band intensity and joint density of states of twisted bilayer graphene
Kentaro Sato, Riichiro Saito, Chunxiao Cong, Ting Yu, Mildred S. Dresselhaus
- 3-12 Production of Nanopores and Proton Conduction in Graphene Oxide Nanosheets Prepared by Photoreaction
Michio Koinuma, Chikako Ogata, Yuki Kamei, Kazuto Hatakeyama, Hikaru Tateishi, Kengo Gezuhara, Takaaki Taniguchi, Yasumichi Matsumoto
- 3-13 Photoluminescence Kinetics of Monolayer Epitaxial Graphene in the Near-Infrared Region
Takeshi Koyama, Yoshito Ito, Kazuma Yoshida, Hiroki Ago, Hideo Kishida, Arao Nakamura
- 3-14 Bilayer graphene sandwiched by ionic molecules: Band-gap and carrier type engineering
Thanh Cuong Nguyen, Minoru Otani, Susumu Okada
- 3-15 Photochemical modification of graphene surfaces with water molecules
Ryo Nouchi, Nobuhiko Mitoma, Katsumi Tanigaki

Special Lecture (14:45-15:15)

- 3S-6 Epitaxial CVD Growth of Graphene
Hiroki Ago

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

General Lecture (15:30-16:15)

Nanohorns · Carbon Nanoparticles

- 3-16 Structure and electronic properties of carbon nanohorn aggregates prepared under nitrogen atmosphere
Ryota Yuge, Takashi Manako, Masako Yudasaka, Kiyohiko Toyama, Takashi Yamaguchi, Sumio Iijima, Kaichiro Nakano
- 3-17 Gastrointestinal behavior of orally-administered single-walled carbon nanohorns
Maki Nakamura, Yoshio Tahara, Tatsuya Murakami, Sumio Iijima, Masako Yudasaka

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- 3-18 Improvement in energy density of electric double-layer capacitors by mixture of AcB and CNB

Okabe Yuta, Ue Hitoshi, Shimizu Kazuki, Suda Yoshiyuki, Takikawa Hirohumi, Tanoue Hideto

Poster Preview (16:15-16:55)

Poster Session (16:55-18:40) () Candidates for the Young Scientist Poster Award Endohedral Nanotubes

- 3P-1 Encapsulation of C₆₀ into the Single Chirality State of (11,10) Single Wall Carbon Nanotubes
Masatoshi Kawai, Toru Igarashi, Haruka Kyakuno, Toshiya Okazaki, Yutaka Maniwa, Kazuhiro Yanagi
- 3P-2 Optical Properties of Perylene / Single-Walled Carbon Nanotubes Composites
Takuya Tsunekawa, Takeshi Koyama, Koji Asaka, Yahachi Saito, Hideo Kishida, Arao Nakamura
- 3P-3 Difference in encapsulated AgBr lifetime between 12CNTs and 13CNTs under electron beam irradiation
Keita Kobayashi, Takeshi Saito, Masaharu Kiyomiya, Hidehiro Yasuda
- 3P-4 Fabrication and characterization of structurally uniform conducting polymers within carbon nanotubes
Kenshi Miyaura, Yasumitsu Miyata, Ryo Kitaura, Hisanori Shinohara
- 3P-5 Amphoteric Carrier Doping to Semiconducting Single-Wall Carbon Nanotubes by TTF and F4TCNQ Encapsulation
Yasuhiro Ito, Shunjiro Fujii, Maki Shimizu, Takeshi Tanaka, Hiromichi Kataura

Formation of Graphene

- 3P-6 Microwave-assisted exfoliation of graphite in organic solvents without using strong oxidants
Haruya Okimoto, Ryota Tada, Masahito Sano
- 3P-7 Raman characterization of patterned graphene directly synthesized by alcohol chemical vapor deposition
Yusuke Kito, Shigeya Narituka, Takahiro Maruyama
- 3P-8 Characterization of interface between hexagonal graphene domains grown on hetero-epitaxial Cu films
Yui Ogawa, Kenji Kawahara, Masahiro Miyashita, Masaharu Tsuji, Hiroki Ago
- 3P-9 CVD Growth of Mono- and Bi-Layer Graphene from Ethanol
Xiao Chen, Pei Zhao, Bo Hou, Shohei Chiashi, Shigeo Maruyama
- 3P-10 Direct growth of hexagonal domain graphene on SiO₂ substrate
Toshiaki Kato, Rikizo Hatakeyama, Toshiro Kaneko

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Properties of Graphene

- 3P-11 First-Principles Study of Carbon-Impurity States in Hexagonal Boron-Nitride Monolayer
Yoshitaka Fujimoto, Takashi Koretsune, Susumu Saito
- 3P-12 Electronic Structures of Bilayer Graphene under Electric Field
Satoru Konabe, Susumu Okada
- 3P-13 Raman scattering study on the X-ray irradiation effect of graphene
Toshiya Murakami, Kazuki Yamazaki, Susumu Kamoi, Noriyuki Hasuike, Hiroshi Harima, Kenji Kisoda, Chihiro Itoh
- 3P-14 Edge Effects on Thermoelectric Power of Graphene Nanoribbons
Teppei Kato, Shinji Usui, Takahiro Yamamoto
- 3P-15 Wave Packet Dynamics Simulations on Electrical Conduction in Graphene Nanoribbons
Yukihiro Takada, Kengo Takashima, Takahiro Yamamoto
- 3P-16 Multiple Dirac points of graphene on a quasiperiodic superlattice
Masayuki Tashima, Naomichi Hatano
- 3P-17 Sheet resistivity for nitrogen doped graphene film grown on Cu foil by sonication mist CVD
Takahiro Mizuno, Morio Takizawa, Shunji Bandow
- 3P-18 Simulated Image of Suspended Graphene by Helium Ion Microscope
Yoshiyuki Miyamoto
- 3P-19 Lattice matching and band gap opening in graphene and h-BN stacked thin films
Yuki Sakai, Susumu Saito
- 3P-20 Synthesis and Optical Properties of Graphene Quantum Dots
Naoto Fuyuno, Daichi Kozawa, Yuhei Miyauchi, Shinichiro Mouri, Kazunari Matsuda
- 3P-21 First-principles study on geometries and electronic structures of halogen-terminated armchair graphene nanoribbons
Hideyuki Jippo, Mari Ohfuchi
- 3P-22 Novel spintronic phenomena arising from pore-edge polarized spins of ferromagnetic graphene nanomeshes
Naoki Kosugi, Yasuki Hashimoto, Kenshi Sakuramoto, Keigo Takeuchi, Shota Kamikawa, Yuko Yagi, Junji Haruyama, Yoshiaki Hashimoto, Kazuhiro Fujita, Yuto Kato, Shingo Katsumoto, Yasuhiro Iye, Pei Zhao, Shigeo Maruyama, Apparao Rao
- 3P-23 Magnetic behaviors sensitive to foreign-atom termination of pore-edge in graphene nanomeshes
Keigo Takeuchi, Kenshi Sakuramoto, Naoki Kosugi, Yasuki Hashimoto, Yuko Yagi, Junji Haruyama, Pei Zhao, Shigeo Maruyama, Apparao Rao

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Applications of Graphene

- 3P-24 Electronic structures of hexagonal boron nitride with topological line defects
Yoko Tomita, Susumu Okada
- 3P-25 Hole-doping to CVD graphene induced by electron beam resist
Yui Ogawa, Masaharu Tsuji, Hiroki Ago
- 3P-26 Fabrication of freestanding graphene nanoribbons devices for in-situ TEM characterization
Shoji Suzuki, Ryo Kitaura, Yuki Sasaki, Keiichi Kamon, Yasumitsu Miyata, Hisanori Shinohara
- 3P-27 The effects of graphene-layer thickness on I-V characteristics of CNT-FETs with graphene contacts
Masato Tamaoki, Shigeru Kishimoto, Takashi Mizutani
- 3P-28 Synthesis of Nanocarbon Composites Based on Reduced Graphene Oxides
Ellya Indahyanti, Hiroyuki Yokoi, Kazuto Hatakeyama, Yasumichi Matsumoto
- 3P-29 First-principles simulations of graphene dual-double gate transistors: implementation of gate electric field
Mari Ohfuchi

Nanohorns

- 3P-30 Apoptotic mechanism of macrophage cells induced by carbon nanohorns
Mei Yang, Minfang Zhang, Yoshio Tahara, Sumio Iijima, Masako Yudasaka
- 3P-31 Synthesis of carbon nanohorns dispersed with metallic nanoparticles by gas-injected arc-in-water method
Noriaki Sano, Tatporn Suntornlohanakul, Chantamane Poonjarernsilp, Daisuke Hirama, Kosuke Taniguchi, Tatsuhiko Norimoto, Taiga Ishii, Hajime Tamon, Tawatchai Charinpanitkul

Nanowires

- 3P-32 Vibronic interaction in the forbidden electronic transition of polyynes and cyanopolynes
Tomonari Wakabayashi, Yoriko Wada, Makiko Tomioka

Carbon Nanoparticles

- 3P-33 Methanol oxidation reaction characteristics of carbon nanomaterials with PtRu-support
Masahiro Ozaki, Yoshiyuki Suda, Hirofumi Takikawa, Hideto Tanoue, Hitoshi Ue, Kazuki Shimizu
- 3P-34 IR spectra of polyyne-iodine complexes in nonpolar solvents
Yoriko Wada, Yusuke Morisawa, Tomonari Wakabayashi
- 3P-35 Formation of carbon nanocapsules from silicon nanoparticles deposited on a carbon nanotube heater
Tomohiro Terada, Koji Asaka, Hitoshi Nakahara, Yahachi Saito

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- 3P-36 Distribution of Lanthanum containing carbon nanocapsules in the DC arc cathode deposit
Kazunori Yamamoto, Shin-ichi Shamoto, Takeshi Akasaka

Miscellaneous

- 3P-37 Dependence of carbon nanocoil length on sonication time
Maruyama Koji, Suda Yosiyuki, Takikawa Hirohumi, Tanoue Hideto
- 3P-38 Doping of Fullerene to Iron Oxide Nanotubes
Yuki Shiraki, Yuki Mishina, Shunji Bandow
- 3P-39 Supercooled and Glassy Water Confined in Zeolite Templated Carbon
Haruka Kyakuno, Kazuyuki Matsuda, Yusuke Nakai, Tomoko Fukuoka, Yutaka Maniwa, Hirotomo Nishihara, Takashi Kyotani
- 3P-40 Microscopic study of Zeolite Templated Carbon by using NMR spectroscopy
Kensuke Yamada, Yusuke Nakai, Kazuyuki Matsuda, Yutaka Maniwa, Hirotomo Nishihara, Takashi Kyotani
- 3P-41 Measurement of electric property of carbon nanocoil in scanning electron microscope
Ryuji Kunitomo, Taiichiro Yonemura, Yoshiyuki Suda, Hideto Tanoue, Hirofumi Takikawa, Hitoshi Ue, Kazuki Shimizu, Yoshito Umeda