

February 13th, Tuesday

Special lectures : 25min(Presentation)+5min(discussion)

General lecture : 10min(Presentation)+5min(discussion)

Poster previews : 1min(Presentation),no discussion

Special lecture (9:00-9:30)

1S-1 Quantum Chemical Molecular Dynamics Simulations of Fullerene and Carbon Nanotube
Dynamic Self-Assembly
Stephan Irle

General lecture (9:30-10:30)

Properties of Nanotubes

- 1-1 Super-Growth Single-Walled Carbon Nanotube Forest: An Ideal Graphene Surface Material with a Surface Area Over 1200 m²/g
Tatsuki Hiraoka, Takeo Yamada, Kenji Hata, Don N. Futaba, Jin Miyawaki, Masako Yudasaka, Motoo Yumura, Sumio Iijima
- 1-2 Internal structure of vertically aligned single-walled carbon nanotubes
Erik Einarsson, Hidetsugu Shiozawa, Christian Kramberger, Mark H. Ruemmel, Alex Grueneis, Thomas Pichler, Shigeo Maruyama
- 1-3 Current-Induced Structural Change of Fullerene-Encapsulated Single Wall Carbon Nanotubes
Hiroshi Somada, Yoshikazu Nakayama
- 1-4 New Crystalline Phases of Carbon Transformed from Carbon Nanotubes under Pressure
Susumu Saito, Koichiro Kato, Masahiro Sakurai, Yuichiro Yamagami

Coffee Break (10:30-10:45)

General lecture (10:45-11:45)

Properties of Nanotubes

- 1-5 Factors Affecting on Electronic Properties of CNTs-FETs
Ryotaro Kumashiro, Nobuya Hiroshiba, Hirotaka Ohashi, Rikizo Hatakeyama, Katsumi Tanigaki
- 1-6 Negative differential resistance transport through C₆₀, C₇₀, and C₈₄ encapsulated double-walled carbon nanotubes
Y. F. Li, T. Kaneko, R. Hatakeyama
- 1-7 Electric Polarization of Cylindrical Carbon-Nanotube Capacitor
Kazuyuki Uchida, Susumu Okada, Kenji Shiraishi, Atsushi Oshiyama
- 1-8 Energetics and Electronic Structure of Carbon Nanotubes with Adatom-vacancy Pairs
Susumu Okada

Lunch Time (11:45-13:00)

Special lecture (13:00-13:30)

1S-2 Novel Approaches for Materialization of Supramolecular Fullerenes

Takashi Nakanishi

General lecture (13:30-14:45)

Properties of Nanotubes

- 1-9 Exciton effect on Raman spectra on single wall carbon nanotubes
○R. Saito, J. Jiang, K. Sato, J. S. Park

- 1-10 Characterization of double-wall carbon nanotubes by absorption, photoluminescence, and Raman spectroscopies
○Konstantin Yakubovskii, Nobutsugu Minami, Taro Ueno, Said Kazaoui, Yasumitsu Miyata, Hiromichi Kataura

- 1-11 Photoinduced Charge Separation of Chemically Modified Carbon Nanotubes
○Osamu Ito, Atula Sandanayaka, Yasuyuki Araki, Francis D'Souza

- 1-12 Diameter-Dependent Dissipation of Vibration Energy of Cantilevered Multiwall Carbon Nanotubes
○Shintaro Sawaya, Yoshikazu Nakayama, Seiji Akita

- 1-13 Effect of Adsorption of various gas molecules on the electronic structure of single walled CNT
○Abhijit Chatterjee

Coffee Break (14:45-15:00)

General lecture (15:00-16:15)

Applications and Properties of Nanotubes

- 1-14 First principles calculations for nanotube disruption by oxygen molecule
○Takazumi Kawai, Yoshiyuki Miyamoto

- 1-15 Structural change in MWCNTs pressurized under H₂ gas atmosphere
○Atsuko Nakayama, Shigenori Numao, Satoshi Nakano, Shyunji Bandow, Sumio Iijima

- 1-16 Visualization of CNT networks in CNT/polymer nanocomposites by ADF-STEM
○Tohoru Matsubara, Kaoru Shoda, Kousuke Ito, Atsuhiko Kunishige, Yoshiyuki Sumiyama

- 1-17 Unique Optical Properties of DNA-dissolved Carbon Nanotubes
○Yuichi Noguchi, Tsuyohiko Fujigaya, Yasuro Niidome, Naotoshi Nakashima

- 1-18 Improved Ultrasonic Dispersion of Carbon Nanotubes
Hiroshi Saito, ○Masahito Sano

Poster preview (16:15-17:15)

Poster session (17:15-18:35)

Properties of Nanotubes

- 1P-1 Origin of Linear Relationship Between CH₂/NH/O-(n, n)SWCNT Reaction Energies and Sidewall Curvature
○Stephan Irle

- 1P-2 High-Speed Screening of Carbon Nanotube

○Yoshiyuki Miyamoto

- 1P-3 Chirality Dependence of G'-band Intensity on Raman Spectra of Single Wall Carbon Nanotubes
○Jin Sung Park, Riichiro Saito, Kentaro Sato, Jie Jiang, Ki Kang Kim, Young Hee Lee, Gene Dresselhaus, Mildred S. Dresselhaus
- 1P-4 Pressure dependence of photoluminescence spectra in single-walled carbon nanotubes dispersed in D₂O with deoxycholic acid
○Satoru Sakoda, Masao Ichida, Yasumitsu Miyata, Hiromichi Kataura, Kenichi Mizuno, Hiroaki Ando
- 1P-5 Electronic structures and magnetic moments at edges of graphene ribbon
○Hirofumi Sakashita, Tatsuki Oda
- 1P-6 Theory of superconductivity of carbon nanotubes and graphene
○K. Sasaki, J. Jiang, R. Saito, S. Onari, Y. Tanaka
- 1P-7 Electronic Structures of Functionalized Single-Walled Carbon Nanotubes
○Yoshikazu Kobayashi, Hiroyuki Fueno, Kazuyoshi Tanaka, Tomokazu Umeyama, Hiroshi Imahori
- 1P-8 Coulomb gap increase in SWNT single-electron transistors induced by low-energy irradiation
○Junichi Hashimoto, Satoru Suzuki, Toshio Ogino, Yoshihiro Kobayashi
- 1P-9 Conversion of metallic SWNT-FETs to semiconducting at room temperature by low-energy irradiation
○Satoru Suzuki, Junichi Hashimoto, Toshio Ogino, Yoshihiro Kobayashi

Formation and Purification of Nanotubes

- 1P-10 Bond Curvature Dependent Oxidation Process in Single-Wall Carbon Nanotubes
○Yasumitsu Miyata, Takazumi Kawai, Yoshiyuki Miyamoto, Kazuhiro Yanagi, Yutaka Maniwa, Hiromichi Kataura
- 1P-11 Orientational control of carbon nanotube growth by plasma-enhanced hot filament chemical vapor deposition
○Chien-Chao Chiu, Masamichi Yoshimura, Kazuyuki Ueda
- 1P-12 Aligned growth of single-walled carbon nanotubes due to interaction with sapphire substrates
○Akira Yamazaki, Daisuke Takagi, Satoru Suzuki, Goo-Hwan Jeong, Hideyuki Yoshimura, Yoshikazu Homma, Yoshihiro Kobayashi
- 1P-13 Growth of carbon nanotube on Si substrate using pulse arc plasma as carbon source
○Tomoyuki Shiraiwa, Yoshiaki Kato, Kenji Tanioku, Suzuka Nishimura, Takahiro Maruyama, Shigeya Naritsuka
- 1P-14 Dielectrophoresis separation of single-walled carbon nanotubes
○Shigeo Maruyama, Junichiro Shiomi, Yuhei Miyauchi, Yuan Lin, Gustav Amberg
- 1P-15 Effect of hydrogen on increasing of the diameters of single-wall carbon nanotubes
○Masahiro Hayakawa, Shunji Bandow, Sumio Iijima

- 1P-16 Growth and Synthesis of Single-Wall Carbon Nanotubes within Mesoporous Materials by Catalyst-supported Chemical Vapor Deposition
 ○Keita Kobayashi, Ryo Kitaura, Toshiki Sugai, Youko Kumai, Yasutomo Goto, Shinji Inagaki, Hisanori Shinohara
- 1P-17 Control of Location and Orientation of Single-Walled Carbon Nanotubes on Sapphire Surface
 ○Ryota Ohdo, Hiroki Ago, Masashi Shinagawa, Naoki Ishigami, Masaharu Tsuji, Tatsuya Ikuta, Koji Takahashi
- 1P-18 Chemistry of Water-Oxidation during CVD Growth of Single- and Double-Walled Carbon Nanotubes over Fe-Mo/MgO Catalyst
 ○Naoki Yoshihara, Hiroki Ago, Masaharu Tsuji
- 1P-19 Low-temperature growth of carbon nanotubes by alcohol CCVD (II)
 Ken Hiasa, Shogo Suzuki, ○Hideki Sato, Koichi Hata, Kazuo Kajiwara, Yahachi Saito
- 1P-20 Half-centimeter long vertically aligned carbon nanotubes using optimized radical CVD conditions and study of CO₂ effects
 ○Takayuki Iwasaki, Tasuku Maki, Tsuyoshi Yoshida, Takumi Aikawa, Tatsuhiko Nozue, Daiyu Kondo, Akio Kawabata, Shintaro Sato, Mizuhisa Nihei, Yuji Awano, Hiroshi Kawarada

Nanohorns

- 1P-21 Toxicological study of single-wall carbon nanohorns
 ○Jin Miyawaki, Masako Yudasaka, Takeshi Azami, Yoshimi Kubo, Sumio Iijima
- 1P-22 Closing Rates of Holes in Single-Wall Carbon Nanohorns at Various Heating Temperature
 ○Jing Fan, Masako Yudasaka, Jin Miyawaki, Ryota Yuge, Takazumi Kawai, Sumio Iijima
- 1P-23 Streptavidin-modified Single Wall Carbon Nanohorns
 ○Xu Jianxun, Masako Yudasaka, Sumio Iijima
- 1P-24 Formation mechanism of single-wall carbon nanohorn aggregates hybridized with carbon
 Keita Kobayashi, Akira Koshio, Yutaka Takahashi, ○Fumio Kokai
- 1P-25 Effect of solvents on CDDP incorporation into SWNHs
 ○Kumiko Ajima, Masako Yudasaka, Sumio Iijima
- 1P-26 Hydrogen production by steam reforming of methane at low temperature using EuPt catalyst supported on single-wall carbon nanohorns
 ○Ryota Yuge, Katsuyuki Murata, Masako Yudasaka, Yoshimi Kubo, Tsutomu Yoshitake, Sumio Iijima
- 1P-27 Drug-loaded single-wall carbon nanohorns dispersed with a polyethylene glycol-peptide conjugate
 ○Sachiko Matsumura, Masako Yudasaka, Sumio Iijima, Kiyotaka Shiba

Chemistry of Fullerenes

- 1P-28 Synthesis and Characterization of Deca(organo)[60]fullerenes Containing Five Ferrocenyl Groups
 ○Ichiki Takahiko, Yutaka Matsuo, Eiichi Nakamura

- 1P-29 Synthesis and Electrochemistry of Fullerene-Metal-Arene Conjugated System
 ○ *Takeshi Nanao, Yutaka Matsuo, Eiichi Nakamura*
- 1P-30 Synthesis of Heterodinuclear Metal Complexes of Octa(organo)[60]fullerenes
 ○ *Takahiro Nakae, Yutaka Matsuo, Eiichi Nakamura*
- 1P-31 Regioselective Octa- and Deca-additions of Pyridine-modified Organocopper Reagent to [60]Fullerene
 ○ *Yutaka Matsuo, Kazukuni Tahara, Kouhei Morita, Keiko Matsuo, Eiichi Nakamura*
- 1P-32 Encapsulation of Helium Atom inside an Open-Cage C₆₀ Derivative and Synthesis of He@C₆₀
 ○ *Fumiyuki Tanabe, Sadayuki Mori, Koichi Komatsu, Michihisa Murata, Yasujiro Murata*

Fullerene Solids

- 1P-33 Fabrication of field-effect transistor devices with Langmuir-Blodgett films of fullerodendron
 ○ *Naoko Kawasaki, Takayuki Nagano, Yoshihiro Kubozono, Yuki Sako, Yutaka Takaguchi, Akihiko Fujiwara, Shijun Hino, Chih-Chien Chu, Toyoko Imae*
- 1P-34 TEM and Raman Spectroscopy Analyses of Fullerene Derivative Nanowhiskers and Fullerene Nanotubes
 ○ *Kun-ichi Miyazawa, Cherry Ringor, Tadahiko Mashino, Shigeo Nakamura*
- 1P-35 Enhanced Growth of C₆₀ Nanotubes by Illumination with UV Light
 ○ *Cherry Ringor, Kun'ichi Miyazawa, Tohru Awane*
- 1P-36 Theoretical Study of Electronic and Transport Properties of Fullerene as a Molecular Device
 ○ *Shinji Usui, Yoshihisa Ohshima, Shoji Hirose, Tetsuo Kitajima*
- 1P-37 Electrical Properties of FET devices with C₆₀ Nano-Whiskers
 ○ *Kenichi Ogawa, Hajime Tsuji, Nobuyuki Aoki, Yuichi Ochiai*
- 1P-38 Electronic transport properties of electron-beam-irradiated C₆₀ polymers
 ○ *H.Tsujii, K.Ogawa, K.Ryuzaki, N.Aoki, J.Onoe, Y.Ochiai*
- 1P-39 Synthesis of polymerized C₆₀ films by irradiation of a free electron laser during a deposition
 ○ *Nobuyuki Iwata, RyoNokariya, Shingo Ando, Reo Koyaizu, Hiroshi Yamamoto*
- 1P-40 Structure and Physical Properties of Charge transfer C₆₁H₂(dihydrofulleroid) Compounds
 ○ *Takayuki Iwase, Satoru Motohashi, Yasutaka Aihara, Shihori Seto, Hironori Ogata*

February 14th, Wednesday

Special lectures : 25min(Presentation)+5min(discussion)

General lecture : 10min(Presentation)+5min(discussion)

Poster previews : 1min(Presentation),no discussion

Special lecture (9:00-9:30)

- 2S-3 Structures of Endohedral Metallofullerenes
Shigeru Nagase

General lecture (9:30-10:30)

Metallofullerenes

- 2-1 La@C₇₂ Having a Non-IPR Carbon Cage
○Hidefumi Nikawa, Takashi Kikuchi, Takatsugu Wakahara, Tsukasa Nakahodo, G. M. Aminur Rahman, Takahiro Tsuchiya, Yutaka Maeda, Takeshi Akasaka, Kenji Yoza, Ernst Horn, Kazunori Yamamoto, Naomi Mizorogi, Zdenek Slanina, Shigeru Nagase
- 2-2 Motion of the La Atoms in La₂@C₈₀ Derivatives
○Michio Yamada, Tsukasa Nakahodo, Takatsugu Wakahara, Takahiro Tsuchiya, Yutaka Maeda, Takeshi Akasaka, Kenji Yoza, Naomi Mizorogi, Shigeru Nagase
- 2-3 Structure of Scandium Carbide-encapsulated Metallofullerene
○Yuko Iiduka, Takatsugu Wakahara, Koji Nakajima, Takahiro Tsuchiya, Yutaka Maeda, Tsukasa Nakahodo, Takeshi Akasaka, Kenji Yoza, Michael T. H. Liu, Naomi Mizorogi, Shigeru Nagase
- 2-4 Characterization of Metallofullerenes and Fullerene Nano-peapods by Synchrotron Radiation: Soft X-ray Magnetic Circular Dichroism Spectroscopy and X-ray Diffraction.
○Ryo Kitaura, Haruya Okimoto, Yuko Kato, Tetsuya Nakamura, Eiji Nishibori, Shinobu Aoyagi, Makoto Sakata, Hisanori Shinohara

Coffee Break (10:30-10:45)

General lecture (10:45-11:45)

Fullerene solids and Chemistry of Fullerenes

- 2-5 Structure and Electronic Properties of (NaH)_xC₆₀ Compounds(II)
○Takashi Naniki, Satoru Motohashi, Hironori Ogata
- 2-6 Analyses of the carrier injection barrier of C₆₀ FET devices with Au source/drain electrodes modified by 1-alkanethiol
○Takayuki Nagano, Yohei Ohta, Naoko Kawasaki, Ryo Nouchi, Yoshihiro Kubozono, Akihiko Fujiwara, Shojun Hino
- 2-7 Electrochemical and Photoelectrochemical Properties of Buckyferrocenes on Electrodes
○Katsuhiko Kanaizuka, Yutaka Matsuo, Eiichi Nakamura
- 2-8 Fullerene derivatives have antioxidant activity but no metal-dependent prooxidant activity
○Shigeo Nakamura, Eriko Satake, Masashi Hatanaka, Kyoko Takahashi, Kenji Matsubayashi, Tadahiko Mashino

Lunch Time (11:45-13:00)

Awards Ceremony (13:00-13:30)

Special lecture (13:30-14:00)

- 2S-4 Title to be announced
Junzo Yana

General lecture (14:00-15:00)

Chemistry of Fullerenes

- 2-9 A New Route to Water-Soluble Fullerenol and its Application to CMP Slurry
○Ken Kokubo, Syogo Shirakawa, Kenji Matsubayashi, Terutake Hayashi, Takashi Miyoshi, Takumi Oshima
- 2-10 Ionization and fragmentation of solid C₆₀ by femtosecond laser ablation
○Tohru Kobayashi, Toshiyuki Kato, Yukari Matsuo, Mizuki Kurata-Nishimura, Jun Kawai, Yoshihide Hayashizaki
- 2-11 Cyclic [5]Paraphenyleneacetylene: Synthesis, properties and its supramolecular properties
○Takeshi Kawase, Yoshitaka Nishiyama, Takamitsu Nakamura, Takahiro Ebi, Kouzou Matsumoto, Hiroyuki Kurata
- 2-12 Stabilization of C₆₀ Nanoparticles by Protein Adsorption
○Shigeru Deguchi, Tomoko Yamazaki, Sada-atsu Mukai, Mikiko Tsudome, Koki Horikoshi

Coffee Break (15:00-15:15)

General lecture (15:15-16:00)

Science of Nanocarbons

- 2-13 Deactivation properties of singlet oxygen by nano-carbon materials
○Kazuhiro Yanagi, Shingo Okubo, Toshiya Okazaki, Yasumitsu Miyata, Hiromichi Kataura
- 2-14 Light-Assisted Oxidation of Single-Wall Carbon Nanohorns for Biological Uses
○Minfang Zhang, Masako Yudasaka, Kumiko Ajima, Sumio Iijima
- 2-15 Molecular dynamics of phase transition of water inside a carbon nanotube
○Junichiro Shiomi, Tatsuto Kimura, Shigeo Maruyama

Poster preview (16:00-17:00)

Poster session (17:00-18:20)

Properties of Nanotubes

- 2P-1 Far-Infrared Absorption Peak in Single-Walled Carbon Nanotubes and Its Correlation with Tube Lengths
○Hirotaka Suzuki, Hidekazu Shimotani, Yoshihiro Iwasa
- 2P-2 Photoluminescence of Larger Diameter Double-Walled Carbon Nanotubes Synthesized from C₆₀ Peapods
○Toshiya Okazaki, Zujin Shi, Takeshi Saito, Kazu Suenaga, Sumio Iijima
- 2P-3 Chirality-sensitive in-situ observation of CVD growth of single-walled carbon nanotubes by Raman spectroscopy
○Masaya Tazawa, Daisuke Takagi, Yoshikazu Homma, Satoru Suzuki, Yoshihiro Kobayashi
- 2P-4 Determining Molar Absorbance Coefficients of Single-Walled Carbon Nanotubes
○Shota Kuwahara, Toshiki Sugai, Hisanori Shinohara
- 2P-5 Photoinduced electron transfer between single-wall carbon nanotubes and C₆₀ dispersed in D₂O
○Koji Inada, Yasuyuki Araki, Sandanayaka Atula, Osamu Ito

- 2P-6 ESR study of boron-doped multiwall carbon nanotubes
 ○Shigenori Numao, Shunji Bandow, Sumio Iijima
- 2P-7 FT-IR study of adsorption of H₂O on SWNTs prepared in Super-Growth technique
 ○Hiroyuki Yokoi, Hirosuke Akimaru, Akinori Kanetake, Noritaka Kuroda, Yuhei Hayamizu, Kenji Hata
- 2P-8 ¹³C NMR study of C₆₀-peapods
 ○Kazuyuki Matsuda, Yutaka Maniwa, Hiromichi Kataura, Shinzo Suzuki, Yohji Achiba
- 2P-9 Polarization dependence of photoluminescence excitation spectra of single-walled carbon nanotubes in UV-Vis range
 ○Yuhei Miyauchi, Shigeo Maruyama

Applications of Nanotubes

- 2P-10 Individual solubilization of single-walled carbon nanotubes using totally aromatic polyimides
 ○Masahiro Shigeta, Kouhei Hirayama, Tsuyohiko Fujigaya, Naotoshi Nakashima
- 2P-11 The relationship between the optical property and physical property of dispersed SWNTs under various pH conditions
 ○Toru Ishii, Teruo Takahashi, Catalin Romeo Luculescu, Katsumi Uchida, Tadahiro Ishii, Hirofumi Yajima
- 2P-12 Dispersion Behavior and Spectroscopic Properties of the Polymorphic Forms of Carbon Nanotubes in Biopolymer Aqueous Solutions
 ○Noriko Maeda, Katsumi Uchida, Tadahiro Ishii, Hirofumi Yajima
- 2P-13 Reduction kinetics of cytochrome *c* through single-walled carbon nanotubes
 ○Koji Matsuura, Takeshi Saito, Satoshi Ohshima, Motoo Yumura, Sumio Iijima
- 2P-14 Preparation of Single-Walled Carbon Nanotube-Organosilicon Hybrids and Their Field Emission Properties
 ○Yutaka Maeda, Tadashi Hasegawa, Yoshinori Sato, Kazuyuki Tohji, Masahiro Kako, Takatsugu Wakahara, Takeshi Akasaka, Jing Lu, Shigeru Nagase
- 2P-15 Assembly and Fluorescence Visualization of Carbon Nanotubes
 ○Fumihito Arai, Moeto Nagai, Akio Shimizu, Akihiko Ishijima, Toshio Fukuda
- 2P-16 Self-Organized Single-Walled Carbon Nanotubes with Honeycomb Structures
 ○Hisayoshi Takamori, Tsuyohiko Fujigaya, Yasuro Niidome, Naotoshi Nakashima

Endohedral Nanotubes

- 2P-17 Raman spectroscopic study on size-selected linear polyynes inside single-wall carbon nanotubes
 ○D. Nishide, T. Wakabayashi, T. Sugai, R. Kitaura, H. Kataura, Y. Achiba, H. Shinohara
- 2P-18 Synthesis and Characterization of C₆₀ and C₇₀ Double-Wall Carbon Nanopeapods
 ○Guoqing Ning, Naoki Kishi, Haruya Okimoto, Masahiro Shiraishi, Toshiki Sugai, Hisanori Shinohara

- 2P-19 Structure and phase behavior of quasi-one-dimensional water
○*Daisuke Takaiwa, Kenichiro Koga, Hideki Tanaka*
- 2P-20 Phase behavior of simple fluids in cylindrical and slit pores
○*Yoshinobu Hamada, Kenichiro Koga, Hideki Tanaka*
- 2P-21 Structural Characterization of Single-Wall Carbon Nanotubes and Fullerene-Nanopeapods by X-ray Diffraction Measurement
○*Yuko Kato, Ryo Kitaura, Takao Akachi, Shinobu Aoyagi, Eiji Nishibori, Makoto Sakata, Hisanori Shinohara*
- 2P-22 HR-TEM observations of structural isomers of C₈₂ with the C₂ symmetry
○*Hideaki Wakabayashi, Shingo Okubo, Masanori Koshino, Yuta Sato, Takeshi Saito, Toshiya Okazaki, Kazu Suenaga*
- 2P-23 Enhanced Structural Stability of C₆₀-Peapods toward Thermal Oxidation and Electron Beam Irradiation
○*Masahiro Shiraishi, Shota Kuwahara, Daisuke Nishide, Yasuhiro Ito, Ryo Kitaura, Toshiki Sugai, Hisanori Shinohara*
- 2P-24 Synthesis and Characterization of Carbon Nanotubes Encapsulating Metal Complexes
○*Daisuke Ogawa, Masashi Ishida, Daisuke Nishide, Ryo Kitaura, Toshiki Sugai, Hisanori Shinohara*
- 2P-25 Energetics of Ice Nanotubes inside Carbon Nanotubes
○*Takahiro Kurita, Susumu Okada, Atsushi Oshiyama*

Chemistry of Fullerenes

- 2P-26 Synthesis of water-soluble cationic porphyrin-C₆₀ hybrids toward efficient photo cleavage of DNA
○*Takahiro Yoshida, Takashi Hirota, Kensuke Okuda*
- 2P-27 Synthesis of Thiolated [60]Fullerene Derivative via Nitrofullerene Intermediate and Its Application to Thin Film Formation on Au
○*Masaru Sekido, Hirokazu Fukidome, Masamichi Yoshimura, Kazuyuki Ueda, Masatomi Ohno*
- 2P-28 Synthesis and Photophysical Properties of [60]Fullerene Adducts Carrying Oligocarbazole Moieties (2)
○*Takashi Konno, Yosuke Nakamura, Satoru Watanabe, Masato Suzuki, Jun Nishimura*
- 2P-29 Two New Metalloporphyrin Dimers: Molecular Scaffold for C₆₀ and C₇₀
○*Sumanta Bhattacharya, Kazuyuki Tominaga, Takahide Kimura, Hidemitsu Uno, Naoki Komatsu*
- 2P-30 Polymerization during mechanochemical oxidation under oxygen atmosphere
○*Hiroto Watanabe, Yuichi Ishiyama, Yusuke Tajima, Mamoru Senna*
- 2P-31 Extraordinarily Large Association Constants of Azulenes with Fullerenes
○*Naoki Komatsu, Sumanta Bhattacharya, A. F. M. Mustafizur Rahman, Takahide Kimura*

- 2P-32 Polymer Chain Length Effects on Temperature-Responsive Phase Transition Behaviors of [60]Fullerene End-Bonded Poly(*N*-isopropylacrylamide)
 ○*Atsushi Tamura, Katsumi Uchida, Hirofumi Yajima*
- 2P-33 Physicochemical property of water-soluble fullerene-chitosan conjugate
 ○*Yoshifumi Mishima, Katsumasa Nemoto, Hitoshi Sashiwa, Katsumi Uchida, Hirofumi Yajima*
- 2P-34 Abundance of C₆₀ revisited
 ○*Yusuke Ueno, Susumu Saito*

Metallofullerenes

- 2P-35 Synthesis and Characterization of Carbene Derivatives of La₂@C₈₀
 ○*Chika Someya, Michio Yamada, Takatsugu Wakahara, Takahiro Tsuchiya, Yutaka Maeda, Takeshi Akasaka, Naomi Mizorogi, Shigeru Nagase*
- 2P-36 Magnetic Properties of Solvent-Free M@C₈₂(I) (M = Y, La, Lu) Metallofullerene Solids
 ○*Takao Akachi, Yasuhiro Ito, Hitomi Takahashi, Hisashi Umemoto, Takashi Inoue, Shunji Bandow, Wataru Fujita, Kunio Awaga, Ryo Kitaura, Toshiki Sugai, Hisanori Shinohara*
- 2P-37 Element Specific Magnetization Measurements of ErY-Metallofullerenes by Soft X-ray Magnetic Circular Dichroism
 ○*Haruya Okimoto, Ryo Kitaura, Yutaka Kitamura, Yasuhiro Ito, Daisuke Ogawa, Takao Akachi, Naoki Imazu, Toshiki Sugai, Tomohiro Matsushita, Takayuki Muro, Hitoshi Osawa, Tetsuya Nakamura, Hisanori Shinohara*
- 2P-38 Development of Pulsed Ion Valve for High-resolution Ion Mobility Measurement
 ○*Toshiki Sugai, Hisanori Shinohara*
- 2P-39 Variation of Electronic Properties in Gd@C₈₂ Metallofullerene Induced by Polyhydroxylation
 ○*Jun Tang, Gengmei Xing, Yuliang Zhao, Long Jing, Xingfa Gao, Ryotaro Kumashiro, Katsumi Tanigaki*

February 15th, Thursday

Special lectures : 25min(Presentation)+5min(discussion)

General lecture : 10min(Presentation)+5min(discussion)

Poster previews : 1min(Presentation),no discussion

Special lecture (9:00-9:30)

- 3S-5 Dispersion of Carbon Nanotubes and Development of Transparent Conductive Coatings
Sumida Yuzo

General lecture (9:30-10:30)

Formation and Purification of Nanotubes

- 3-5 Competing Growth of Horizontally-Aligned SWNTs between Surface Atomic Arrangement and Surface Steps on Sapphire
 ○*Kenta Imamoto, Hiroki Ago, Naoki Ishigami, Ryota Ohdo, Naoyasu Uehara, Masaharu Tsuji*

- 3-2 Optical Enrichment of SWNTs through Preferential Extraction with Pyridine-based Chiral Diporphyrin Nano-tweezers
 ○Xiaobin Peng, Naoki Komatsu, Takahide Kimura, Atsuhiko Osuka
- 3-3 Radical chemical vapor deposition of vertically aligned CNTs at low temperatures using size-classified Co particles for LSI interconnects
 ○Daisuke Yokoyama, Takayuki Iwasaki, Tsuyoshi Yoshida, Shintaro Sato, Mizuhisa Nihei, Yuji Awano, Hiroshi Kawarada
- 3-4 Electrochemical growth of Pd nanostructures for the synthesis of multiwalled carbon nanotubes
 ○Rakesh K. Joshi, Masamishi Yoshimura, Kazuyuki Ueda

Coffee Break (10:30-10:45)

General lecture (10:45-11:45)

Applications of Nanotubes

- 3-5 Carbon Nanotube Growth by Remote Plasma CVD for Via Interconnects
 ○Naoshi Sakuma, Masayuki Katagiri, Tadashi Sakai, Mariko Suzuki, Mizuhisa Nihei, Shintaro Sato, Takashi Hyakushima, Yuji Awano
- 3-6 Area Selective Deposition of Carbon Nanotubes by Optical Tweezers for Optical Devices Applications
 ○Ken Kashiwagi, Shinji Yamashita, Sze Yun Set
- 3-7 Reduction of contact resistance by chemical doping in carbon nanotube FETs
 ○Yosuke Noshio, Yutaka Ohno, Shigeru Kishimoto, Takashi Mizutani
- 3-8 Ultra sensitive, room temperature NO₂ detection using single-wall carbon nanotube networks prepared by a simple method
 ○Annamalai Karthigeyan, Nobutsugu Minami, Konstantin Iakoubovskii

Lunch Time (11:45-13:00)

Special lecture (13:00-13:30)

- 3S-6 Phase transitions of water and simple liquids in carbon nanotubes
 Kenichiro Koga

General lecture (13:30-14:00)

Formation and Purification of Nanotubes

- 3-9 Single-walled Carbon Nanotubes from Gold-group Catalysts
 ○Daisuke Takagi, Yoshikazu Homma, Hiroki Hibino, Satoru Suzuki, Yoshihiro Kobayashi
- 3-10 Synthesis of Diameter-Controlled Carbon Nanotubes Using Centrifugally Classified Nanoparticle Catalysts
 ○Takashi Inoue, Itaru Gunjishima, Atsuto Okamoto

Poster preview (14:00-15:00)

Poster session (15:00-16:20)

Formation and Purification of Nanotubes

- 3P-1 Growth of Carbon nanotubes on Si substrates using alcohol gas source in a high vacuum
○Kenji Tanioku, Tomoyuki Shiraiwa, Takahiro Maruyama, Shigeya Naritsuka
- 3P-2 Study of Carbon Source Gas Separation for Fabrication of Carbon Nanotubes
○Takeshi Hikata, Kazuhiko Hayashi, Ken-ichi Sato, Tomoyuki Mizukoshi, Yoshiaki Sakurai, Itsuo Ishigami, Takaaki Aoki, Toshio Seki, Jiro Matsuo
- 3P-3 Effect of metallicity on the diameter distribution of single walled carbon nanotubes synthesized by catalytic ACCVD
○Krishnendu Bhattacharyya, Yoshiyuki Suda, Yosuke Sakai, Hirotake Sugawara, Atsushi Okita, Takeshi Saito, Atsushi Ozeki, Masayuki Maekawa, Junichi Takayama
- 3P-4 Production of SWNTs by AC arc discharge in H₂-Ar-CH₄ mixture gas
○Masafumi Shibata, Xinluo Zhao, Sakae Inoue, Yosinori Ando
- 3P-5 The effect of SiO₂ thickness on the growth of SWNTs
○Toshiya Murakami, Takahiro Tokuda, Yuki Hasebe, Kengo Higashi, Kenji Kisoda, Koji Nishio, Toshiyuki Isshiki, Hiroshi Harima
- 3P-6 Recovery of carbon nanotubes dispersed with amphiphilic oligopeptides in water
○Atsushi Yamamoto, Shin-ya Masuhara, Yoshihiro Furukawa, Ryosaku Kawabata, Masao Kamahori, Shin Ono
- 3P-7 Separation of Metallic and Semiconducting Single-Walled Carbon Nanotubes by Electric Field
○Yoshikazu Wakizaka, Ken-ichi Nakayama, Satoshi Tanaka, Yoshiaki Sakurai, Yasuo Kanematsu, Masaaki Yokoyama
- 3P-8 Synthesis of vertical-aligned carbon nanotubes on SiO₂/Si substrate by microwave plasma chemical vapor deposition using CH₄/H₂ gasses
○T. Naitou, A. Watanabe, Y. Hayashi, T. Tokunaga, K. Kaneko
- 3P-9 Size control of catalytic nanoparticles by thermal treatment toward diameter control of single-walled carbon nanotubes
○Akira Yamazaki, Goo-Hwan Jeong, Satoru Suzuki, Hideyuki Yoshimura, Yoshihiro Kobayashi
- 3P-10 Production, Purification and Characterization of Double-Wall Carbon Nanotubes Synthesized by Hydrogen Arc Discharge
○Naoki Imazu, Masahiro Shiraishi, Naoki Kishi, Ryo Kitaura, Toshiki Sugai, Takeshi Hashimoto, Xinluo Zhao, Yoshinori Ando, Hisanori Shinohara

Applications of Nanotubes

- 3P-11 Cytotoxicological Studies of Carbon Nanotube Particles with Cultured Animal Cells.
~Standardrization for in vitro test~
Yuki Morioka, Takao Saito, Michiko Kusunoki, Motohiro Yamamoto, ○Katsuya Kato
- 3P-12 In situ TEM study on field emission from an isolated CNT:Field enhancement depending on emitter-anode gap
○Kensuke Okumura, Kazuyuki Seko, Yahachi Saito

- 3P-13 Field emission microscopy of MWNTs deposited with aluminum
 ○Tetsuya Yamashita, Tomohiro Matsukawa, Yahachi Saito
- 3P-14 Reactive Carbon Nanotube Solubilizers - Individual solubilization and Pulsed Laser Irradiation
 ○Kaori Narimatsu, Tsuyohiko Fujigaya, Yasuro Niidome, Naotoshi Nakashima
- 3P-15 Separation of Semiconducting-Enriched Single-Walled Carbon Nanotubes using a Long Alkyl-Chain Benzenediazonium Compound
 ○Shouhei Toyoda, Yoshifumi Yamaguchi, Masataka Hiwatashi, Yasuhiko Tomonari, Hiroto Murakami, Naotoshi Nakashima
- 3P-16 Carbon Nanotube-coating on Photografted Polymer Films
 ○Shinsuke Haraguchi, Yoshifumi Yamaguchi, Tsuyohiko Fujigaya, Yasuro Niidome, Naotoshi Nakashima
- 3P-17 Role of van der Waals Interaction during DC Electrodeposition of Carbon Nanotubes
 ○Takanori Mastumoto, Masahito Sano

Nanohorns

- 3P-18 Development of DMFC Stack Cell using Catalytic-Metal-Particles Dispersed Arc-Soot
 ○Kenji Shinohara, Keisuke Higashi, Yuki Izumi, Masanobu Yamamoto, Shinichiro Oke, Hirohumi Takikawa, Nobuyoshi Aoyagi, Takashi Okawa, Toshihiro Sakakibara, Sotaro Nakamura, Syuichi Sugawara, Kazuo Yoshikawa, Koji Miura, Shigeo Ito, Tatsuo Yamaura
- 3P-19 Photoinduced Charge-Separation of Chemically Modified Carbon Nanohorns
 ○Osamu Ito, Atula Sandanayaka, Yasuyuki Araki, Masako Yudasaka, Sumio Iijima, Nikos Tagmatarchis
- 3P-20 Production of single-wall carbon nanohorns with high purity
 ○Takeshi Azami, Ryota Yuge, Daisuke Kasuya, Tsutomu Yoshitake, Yoshimi Kubo, Masako Yudasaka, Sumio Iijima
- 3P-21 Arc-Soot Electrode with Highly Dispersed RuO₂ for Electrochemical Capacitor
 ○Masanobu Yamamoto, Keisuke Higashi, Kenji Shinohara, Sinichiro Oke, Hirofumi Takikawa, Xiaojun He, Shigeo Itoh, Tatsuo Yamaura, Kouji Miura, Kazuo Yoshikawa
- 3P-22 Magnetism of O₂ adsorbed in SWNH: evaluation of adsorption space
 ○Hitomi Takahashi, Shunji Bandow, Sumio Iijima
- 3P-23 Boron nano-particles supported arc-generated
 ○Takayuki Inagaki, Shunji Bandow, Sumio Iijima
- 3P-24 High yeild production of small carbon nanohorons by means of DC arc discharge and their characterization
 ○Takayuki Inagaki, Manabu Harada, Shunji Bandow, Sumio Iijima

Metallofullerenes

- 3P-25 Formation of Nitrogen Atom Endohedral Fullerenes Using a Multipole Mirror-Type Electron Cyclotron Resonance Discharge Plasma

○*Shigeyuki Abe, Hiroyasu Ishida, Shohei Nishigaki, Toshiro Kaneko, Rikizo Hatakeyama*

3P-26 Effects of Parameters on Synthesis of Nitrogen Atom Encapsulated Fullerenes Using an RF
○*Shohei Nishigaki, Shigeyuki Abe, Toshiro Kaneko, Rikizo Hatakeyama*

3P-27 Ultraviolet Photoelectron Spectroscopy of $\text{Lu}_2@C_{82}(\text{II})$
○*Takafumi Miyazaki, Masayuki Kato, Konosuke Furukawa, Ryohei Sumii, Hisashi Umemoto, Haruya Okimoto, Toshiki Sugai, Hisanori Shinohara, Shojun Hino*

3P-28 ^{13}C NMR Study of $\text{Pr}_2@C_{80}$
○*Manabu Ito, Shiho Nagaoka, Takeshi Kodama, Yoko Miyake, Shinzo Suzuki, Koichi Kikuchi, Yohji Achiba*

3P-29 Fluorescence Properties of Erbium-Metal-Carbide Metallofullerenes: $(\text{Er}_2\text{C}_2)@C_{2n}$
○*Masahiro Akachi, Yasuhiro Ito, Ryo Kitaura, Toshiki Sugai, Hisanori Shinohara*

Carbon Nanoparticles

3P-30 Electronic and magnetic properties of acid-adsorbed nanoporous activated carbon fibers
○*Hao Sijia, Kazuyuki Takai, Toshiaki Enoki*

3P-31 Chemical Control of Nanodiamond Surface Leading to Control of the Water Dispersibility
○*Tatsuya Takimoto, Naoki Kadota, Yoichi Morita, Shuji Aonuma, Takahide Kimura, Naoki Komatsu*

3P-32 Encapsulation of La in Spherical Graphitic Shells by Arc Discharge
○*Kazunori Yamamoto, Takatsugu Wakahara, Takeshi Akasaka*

Miscellaneous

3P-33 Effect of annealed temperature on the capacitance of electrochemical capacitors
○*X.J. He, M. Yamamoto, K. Higashi, K. Shinohara, S. Oke, H. Takikawa, S. Itoh, T. Yamaura, K. Miura, K. Yoshikawa*

3P-34 Fully-automated CVD system for gram scale production of Super-growth SWNTs
-A step toward industrial-scale mass production-
○*Don N. Futaba, Tatsunori Namai, Tatsuki Hiraoka, Kenji Hata, Takeo Yamada, Motoo Yumura, Sumio Iijima*

3P-35 Mass Production of Carbon Nanotwist and its Field Emission
○*Y.Hosokawa, R.Sugiura, H.Shiki, H.Takikawa, T.Ina, S.Itoh, T.Yamaura*

3P-36 Methodology for Fabricating LB Films of Fullerene
○*Yasuhiro F. Miura, Atsushi Yamashita, Issei Matsuoka, Mitsutaka Urushibata, Michio Sugi*

3P-37 Comparison of evolved gas by some pretreatment methods of CNT
○*Shinji Fukumoto, Toyohito Wada, Yasushi Suzuki*

3P-38 An XRD study of multiwalled carbon nanotubes' diameter
○*Atsuhiko Kunishige, Tohru Kawamoto, Shoichi Kase, Yoshiyuki Sumiyama*