

**January 7th, Sat**

**Plenary Lecture : 35min(Presentation)+5min(discussion)**

**Special lecture : 25min(Presentation)+5min(discussion)**

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

**Poster preview : 1min(Presentation),no discussion**

**Opening Ceremony (9:00-9:05)** *Hisanori Shinohara*

**Plenary Lecture (9:05-9:50)**

1S-1 Recent Progress in Nano-Carbon Research *Eiji Ōsawa*

**General lecture (9:50-10:35)**

**Properties of Nanotubes**

- 1-1 Photoluminescence mapping of various (n, m) nanotubes by cross-polarized light  
*Yuhei Miyauchi, Mototeru Oba, Shigeo Maruyama*
- 1-2 Family pattern of photoluminescence and Raman intensity of single wall carbon nanotubes  
*R. Saito, J. Jiang, K. Sato, Y. Oyama*
- 1-3 Nanoscale uniaxial pressure effect of carbon nanotubes on the Raman spectra  
*Taka-aki Yano, Yasushi Inouye, Satoshi Kawata*

**Coffee Break (10:35-10:50)**

**General lecture (10:50-12:05)**

**Properties of Nanotubes**

- 1-4 Chirality-dependent environmental effect on photoluminescence of SWNTs  
*Shinya Iwasaki, Yutaka Ohno, Yoichi Murakami, Shigeru Kishimoto, Shigeo Maruyama, Takashi Mizutani*
- 1-5 Mid-gap luminescence centers in single-wall carbon nanotubes created by UV illumination  
*Konstantin Iakoubovskii, Nobutsugu Minami, Yeji Kim, Kanae Miyashita, Said Kazaoui, Balakrishnan Nalini*
- 1-6 Single walled carbon nanotube analysis: Rapid, robust acquisition and simulation of quantum and chiral maps to ease structural assignments.  
*Adam M. Gilmore, Ray K. Kaminsky, James M. Mattheis*
- 1-7 Third-order nonlinear optical response and relaxation dynamics in double-walled carbon nanotubes  
*Arao Nakamura, Takako Tomikawa, Sadanobu Imamura, Miki Watanabe, Yasushi Hamanaka, Yahachi Saito, Hiroki Ago*
- 1-8 Effects of Gravity on SWCNT Dissipative Structures Induced by DC Electric Field  
*Syuichi Sato, Masahito Sano*

**Lunch Time (12:05-13:20)**

**Special lecture (13:20-13:50)**

1S-2 Ultrafast optical nonlinearity in single-walled carbon nanotubes *Hiroshi Okamoto*

**General lecture (13:50-14:35)**

**Properties of Nanotubes**

- 1-9 Mechanical Characteristics of High-Density and Well-Aligned Carbon Nanotubes on SiC  
*Michiko Kusunoki, Hatsuhiro Usami, Daisuke Igimi, Koji Miyake*
- 1-10 Electronic structures of the interface between carbon nanotubes and titanium electrodes measured by hard x-ray photoemission spectroscopy  
*Daiyu Kondo, Mizuhisa Nihei, Akio Kawabata, Shintaro Sato, Eiji Ikenaga, Masaaki Kobata, Jung-Jin Kim, Keisuke Kobayashi, Satoshi Komiya, Yuji Awano*
- 1-11 Vibration analysis of carbon nanotube cantilevers  
*Seiji Akita, Sintaro Sawaya, Yoshikazu Nakayama*

## Coffee Break (14:35-14:50)

## General lecture (14:50-16:05)

### Endohedral Nanotubes

- 1-12 First-principles calculations of the radial breathing mode of peapods *Susumu Okada*
- 1-13 Synthesis and electronic properties of Fe-filled single-walled carbon nanotubes  
*Yongfeng Li, Rikizo Hatakeyama, Toshiro Kaneko, Takeshi Izumida, Takeru Okada, Toshiaki Kato*
- 1-14 Optical Properties of  $\beta$ -carotene inside Single-Walled Carbon Nanotubes  
*Kazuhiro Yanagi, Yasumitsu Miyata, Hiromichi Kataura*

### Nanohorns

- 1-15 Cap effects of Gd acetate on nanohorn holes  
*Ryota Yuge, Jin Miyawaki, Masako Yudasaka, Yoshimi Kubo, Eiichi Nakamura, Hiroyuki Isobe, Hideki Yorimitsu, Sumio Iijima*

### Miscellaneous: Carbon Nanofibers

- 1-16 Formation of Carbon Nanofibers Having an Array of Conical Nano Cavities and Snapping at Their Nodes  
*Akira Koshio, Yuta Takemura, Fumio Kokai*

## Poster preview (16:05-16:55)

## Poster session (16:55-18:25)

### Chemistry of Fullerenes

- 1P-1 Fabrication and Properties of Self-assembled Monolayers modified with C<sub>60</sub>-derivative Fixed on Gold Nanoparticles  
*Noriaki Ikeda, Chyongjin Pac, Hiroshi Moriyama*
- 1P-2 Electrochemistry of an Open-Cage C<sub>60</sub> Embedded in a Film on an Electrode in an Aqueous Media  
*Masaharu Komatsu, Kenichi Watanabe, Ayumi Ishibashi, Yasuro Niidome, Michihisa Murata, Yasujiro Murata, Koichi Komatsu, and Naotoshi Nakashima*
- 1P-3 Synthesis and Properties of a New C<sub>60</sub>-TTP Hybrid System  
*Takahiro Ikeuchi, Hisakazu Miyamoto, Yohji Misaki*
- 1P-4 Synthesis and Photophysical Properties of [60]Fullerene Adducts Carrying Oligocarbazole Moieties  
*Takashi Konno, Yosuke Nakamura, Satoru Watanabe, Masato Suzuki, Jun Nishimura*
- 1P-5 Confirmation of Chemical Modification of Carbon Nanotubes Using Gold Particles as Reaction Indicator  
*Hiroaki Azebara, Yuka Kasanuma, Takaharu Okajima, Tadashi Fujieda, Toshio Yasuda, Motoyuki Hirooka, Kishio Hidaka, Mitsuo Hayashibara, Hiroshi Tokumoto*
- 1P-6 Fullerene Derivatives Bound to Oxygen - Synthesis, Photophysical behavior, and Generation of Singlet Oxygen  
*Takeshi Honma, Takumi Hara, Yusuke Tajima, Mikio Hoshino, Shiro Matsumoto, Kazuo Takeuchi*
- 1P-7 Organofullerenes Highly Soluble in Polar Solvents  
*Kiminori Kawakami, Jun Enda*

- 1P-8 Organic and Organometallic Derivatives of Dihydrogen-encapsulated [60]Fullerene  
*Yutaka Matsuo, Hiroyuki Isobe, Takatsugu Tanaka, Yasujiro Murata, Michihisa Murata, Koichi Komatsu, Eiichi Nakamura*

## Metallofullerenes

- 1P-9 Ionization and Chemical Functionalization of Gd@C<sub>82</sub>  
*Takayoshi Kono, Yoichiro Matsunaga, Tsukasa Nakahodo, Takahiro Tsuchiya, Takatsugu Wakahara, Yutaka Maeda, Takeshi Akasaka, Shingo Okubo, Tatsuhisa Kato, Naomi Mizorogi, Kaoru Kobayashi, Shigeru Nagase*
- 1P-10 Isolation and Characterization of La@C<sub>74</sub>(C<sub>6</sub>H<sub>3</sub>C<sub>12</sub>)-II  
*Takashi Kikuchi, Hidefumi Nikawa, Takatsugu Wakahara, Tsukasa Nakahodo, Takahiro Tsuchiya, Takeshi Akasaka, G. M. Aminur Rahman, Yutaka Maeda, Kenji Yoza, Ernst Horn, Naomi Mizorogi, Shigeru Nagase*
- 1P-11 Isolation and Characterization of Gd<sub>2</sub>@C<sub>78</sub>  
*Yuji Takematsu, Takayoshi Kono, Tsukasa Nakahodo, Takahiro Tsuchiya, Takatsugu Wakahara, Yutaka Maeda, Takeshi Akasaka, Tatsuhisa Kato, Shigeru Nagase*
- 1P-12 Analysis of Lanthanide-Induced NMR Shifts of the Ce@C<sub>82</sub> Anion  
*Michio Yamada, Takatsugu Wakahara, Yongfu Lian, Takahiro Tsuchiya, Takeshi Akasaka, Markus Waelchli, Naomi Mizorogi, Shigeru Nagase*
- 1P-13 Systematic Study of Lutetium Endohedral Di-Metallofullerenes: Production, Isolation and Structural characterization of Lu<sub>2</sub>C<sub>2n</sub> (2n=74-86)  
*Hisashi Umemoto, Takashi Inoue, Tetsuo Tomiyama, Ryo Kitaura, Toshiki Sugai, Hisasori Shinohara*

## Fullerene Solids

- 1P-14 Facile Generation of Fullerene Nanoparticles by Hand-Grinding  
*Shigeru Deguchi, Sada-atsu Mukai, Koki Horikoshi*
- 1P-15 The Structure and Physical Properties in Ternary C<sub>60</sub> Compounds  
*Takashi Naniki, Satoru Motohashi, Hironori Ogata*
- 1P-16 Solution-Processed Organic Thin-Film Transistors Based on Dodecyl Substituted C<sub>60</sub> Derivatives  
*Masayuki Chikamatsu, Atsushi Itakura, Yuji Yoshida, Reiko Azumi, Koichi Kikuchi, Kiyoshi Yase*
- 1P-17 Electronic properties of higher fullerenes and their related compounds  
*Hiroyuki Sugiyama, Takayuki Nagano, Kumiko Imai, Haruka Kusai, Akihiko Fujiwara, Taishi Takenobu, Yoshihiro Iwasa, Yoshihiro Kubozono*

## Carbon Nanoparticles

- 1P-18 Study on Encapsulation of Radioactive Waste Elements inside Carbon Nanocapsules  
*Kazunori Yamamoto*
- 1P-19 Preparation of polyhedral graphite particles including rare earth metal carbides in their centers  
*Keita Kobayashi, Akira Koshio, Tatsuo Nakagawa, Fumio Kokai*

## Formation and Purification of Nanotubes

- 1P-20 Bulk ACCVD Generation of SWNTs with Narrow Chirality Distribution  
*Shigeo Maruyama, Yuhei Miyauchi, Takashi Shimada, Yoichi Murakami, Kenichi Sato, Yuji Ozeki, Masahito Yoshikawa*
- 1P-21 Isolation of Circular Aggregates of Single-Walled Carbon Nanotubes by Ultrasonic Atomization  
*Naoki Komatsu, Takanori Shimawaki, Shuji Aonuma, Takahide Kimura*
- 1P-22 Recent advances in growth of vertically aligned SWNT films by ACCVD  
*Erik Einarsson, Masayuki Kadowaki, Yoichi Murakami, Shigeo Maruyama*
- 1P-23 Selective Oxidation of Semiconducting Single-Wall Carbon Nanotubes by Hydrogen Peroxide  
*Yasumitsu Miyata, Yutaka Maniwa, Hiromichi Kataura*
- 1P-24 Growth of carbon nanotubes by RF-PECVD -Lowering of growth temperature by pretreatment of catalyst film-

- 1P-25 Low-temperature growth of carbon nanotubes by alcohol CCVD  
*Ken Hiasa, Tsuyoshi Nakagita, Hideki Sato, Koichi Hata, Yahachi Saito*
- 1P-26 Plasma sheath effects on the growth of freestanding individual single-walled carbon nanotubes  
*Toshiaki Kato, Rikizo Hatakeyama, Kazuyuki Tohji*
- 1P-27 Synthesis and Purification of Double Walled Carbon Nanotubes  
*Kazuyo Matsumoto, Toshiya Murakami, Kenji Kisoda, Toshiyuki Isshiki, Hiroshi harima*
- 1P-28 The Effect of intra-Pore Size of Porous Glass for the Preparation of Single-Wall Carbon nanotubes  
*Yosuke Aoki, Shinzo Suzuki, Hiromichi Kataura, Hiroshi Nagasawa, Hisao Abe, Yohji Achiba*
- 1P-29 Influence of CH<sub>4</sub>, C<sub>2</sub>H<sub>4</sub>, or C<sub>2</sub>H<sub>2</sub> gas addition on the growth of SWNTs in H<sub>2</sub>-Ar arc discharge  
*T. Kitamura, X. Zhao, S. Inoue, Y. Ando*

### **Endohedral Nanotubes**

- 1P-30 Selective Encapsulation of Dimetallofullerene into Single-Wall Carbon nanotubes  
*Masashi Ishida, Daisuke Nishide, Takashi Inoue, Ryo Kitaura, Toshiki Sugai, Hisanori Shinohara*
- 1P-31 Incorporation and release of C<sub>60</sub> in/from single-wall carbon nanotubes with large diameters  
*J. Fan, M. Yudasaka, R. Yuge, D. N. Futaba, K. Hata, S. Iijima*

### **Nanohorns**

- 1P-32 In vivo magnetic resonance imaging of single-wall carbon nanohorns through labeling with magnetite nanoparticles  
*Jin Miyawaki, Masako Yudasaka, Hideto Imai, Hideki Yorimitsu, Hiroyuki Isobe, Eiichi Nakamura, Sumio Iijima*
- 1P-33 Structure of hole edges of single-wall carbon nanohorns and its influence on cisplatin release  
*Kumiko Ajima, Masako Yudasaka, Alan Maigne, Jin Miyawaki, Sumio Iijima*

### **Properties of Nanotubes**

- 1P-34 Phonon transport in finite length SWNTs using molecular dynamics simulations  
*Junichiro Shiomi, Shigeo Maruyama*
- 1P-35 Kataura plot based on GWA graphene dispersion  
*Mototeru Oba, Susumu Okada, Takashi Miyake, Shigeo Maruyama*
- 1P-36 AFM Evaluation on Suspended Carbon Nanotubes  
*Shota Kuwahara, Toshiki Sugai, Hisanori Shinohara*
- 1P-37 Single-Walled Carbon Nanotubes Studied by Tip-enhanced Near-field Raman Spectroscopy  
*Yuika Saito, Takashi Murakami, Norihiko Hayazawa, Hiromichi Kataura, Satoshi Kawata*
- 1P-38 The feature of the Breit-Wigner-Fano Raman line in DNA-wrapped single-wall carbon nanotubes  
*Hironori Kawamoto, Takashi Uchida, Masaru Tachibana and Kenichi Kojima*
- 1P-39 Band-gap modulation of semiconductive single-walled carbon nanotube in micellar solution by addition of viologens  
*Koji Matsuura, Takeshi Saito, Toshiya Okazaki, Satoshi Ohshima, Motoo Yumura and Sumio Iijima*
- 1P-40 Theoretical Current-Voltage Characteristics of Finite-Length Carbon Nanotube Between Silicon(111) Electrodes  
*Yoshikazu Kobayashi, Shigekazu Ohmori, Hiroyuki Fueno, and Kazuyoshi Tanaka*
- 1P-41 Photon-induced damage creation in carbon nanotubes  
*Satoru Suzuki, Fumihiko Maeda, Yoshihiro Kobayashi*

### **Application of Nanotubes**

- 1P-42 Chemical Modification of Multi-walled Carbon Nanotubes (MWNTs) by Vacuum Ultra-violet (VUV) Irradiation Dry Process

*Koji Asano, Daiyu Kondo, Akio Kawabata, Fumio Takei, Mizuhisa Nihei, Yuji Awano*

- 1P-43 Fabrication of antigen sensor using carbon nanotube FETs  
*Kentaro Tani, Hiroshi Ito, Yutaka Ohno, Shigeru Kishimoto, Mina Okochi, Hiroyuki Honda, Takashi Mizutani*
- 1P-44 Easy Fabrication Process of Carbon Nanotube Emitters for Diode Type Field Emission Display with Organic Luminescence Thin Films  
*Nobuyuki Iwata, Yasunori Hata, Masato Yoshikuni, Hiroshi Yamamoto*
- 1P-45 Development of detachment method of vertically aligned SWNT films from substrates and their re-attachment to arbitrary surfaces  
*Yoichi Murakami, Masayuki Kadowaki, Erik Einarsson, Shigeo Maruyama*
- 1P-46 Microreactors Utilizing Vertically-Aligned Carbon Nanotubes  
*Naoki Ishigami, Hiroki Ago, Yukihiro Motoyama, Mikihiro Takasaki, Masashi Shinagawa, Koji Takahashi, Masaharu Tsuji*

## **Miscellaneous**

- 1P-47 Growth and Characterization of Carbon Nanowalls  
*Hirofumi Yoshimura, Akihiko Yoshimura, Pedro Molina-Morales, Hiroshi Nakai, Kenichi Kojima, Masaru Tachibana*
- 1P-48 Surface Modification of Carbon Nanotube with NO<sub>2</sub> Radical in Fuming Nitric Acid  
*Kyozo Mizuno, Masaru Sekido, Masatomi Ohno*

## **January 8th, Sun**

**Special lecture : 25min(Presentation)+5min(discussion)**

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

**Poster preview : 1min(Presentation),no discussion**

## **Special lecture (9 : 00-9 : 30)**

- 2S-3 Subnanometer Diameter Nanowires and Nanotubes in the ternary molybdenum-chalcogen-halogen system  
*Aleš Mrzel, Dragan Mihailović, Maja Remškar, Abdou Hassaien, Hiromichi Kataura*

## **General lecture (9 : 30-10 : 15)**

### **Metallofullerenes**

- 2-1 Structural Determination of Sc<sub>3</sub>C<sub>82</sub>  
*Yuko Iiduka, Takatsugu Wakahara, Tsukasa Nakahodo, Takahiro Tsuchiya, Akihiro Sakuraba, Yutaka Maeda, Takeshi Akasaka, Kenji Yoza, Ernst Horn, Tatsuhisa Kato, Michael T. H. Liu, Naomi Mizorogi, Kaoru Kobayashi, Shigeru Nagase*
- 2-2 Spin-Transfer System under Equilibrium Constructed from Endohedral Metallofullerenes and Organic Donors  
*Kumiko Sato, Takahiro Tsuchiya, Takatsugu Wakahara, Yutaka Maeda, Tsukasa Nakahodo, Takeshi Akasaka, Tatsuhisa Kato, Kei Ohkubo, Shunichi Fukuzumi, Naomi Mizorogi, Kaoru Kobayashi, Shigeru Nagase*
- 2-3 <sup>13</sup>C NMR Study of CeLa@C<sub>80</sub> Anion  
*Tomohito Komaki, Takeshi Kodama, Yoko Miyake, Shinzo Suzuki, Koichi Kikuchi, Yohji Achiba*

## **Coffee Break (10 : 15-10 : 30)**

## General lecture (10:30-11:15)

### Metallofullerenes

- 2-4 Element Specific Magnetization Measurements of Er Metallofullerenes by Soft X-ray Magnetic Circular Dichroism (SXMCD)  
*Haruya Okimoto, Tetsuya Nakamura, Ryo Kitaura, Takayuki Yamada, Yutaka Kitamura, Tomohito Matsushita, Takayuki Muro, Takashi Inoue, Toshiki Sugai, Susumu Nanao, Hisanori Shinohara*
- 2-5 The Ultraviolet Photoelectron spectra of  $Ti_2C_2@C_{82}$   
*Masayuki Kato, Kentaro Iwasaki, Shojun Hino, Daisuke Yoshimura, Hiroe Moribe, Haruya Okimoto, Yasuhiro Ito, Toshiki Sugai, Hisanori Shinohara*
- 2-6 Fluorescence switching in  $Er@C_{82}$  by solvent-induced electron transfer  
*Shingo Okubo, Toshiya Okazaki, Sumio Iijima*

## General lecture (11:15-12:00)

### Chemistry of Fullerenes

- 2-7 Single Electron Transfer from Aliphatic Amines with [60]Fullerene at the Ground State and Facile Synthesis of Tetraaminofullerene Epoxide  
*Takatsugu Tanaka, Waka Nakanishi, Loïc Lemiègre, Hiroyuki Isobe, Eiichi Nakamura*
- 2-8 Synthesis of Fullerene  $C_{70}$  Encapsulating Molecular Hydrogen  
*Yasujiro Murata, Shuhei Maeda, Michihisa Murata, Koichi Komatsu*
- 2-9 Control of Decomposition of Acrylic Polymers by dispersing Fullerene-derivatives  
*Tomoya Yamashiki, Yusuke Tajima, Toshihiko Sakurai, Ryoko Shimada, Hiroki Osedo*

## Lunch Time (12:00-13:20)

## Awards Ceremony (13:20-13:50)

## Special lecture (13:50-14:20)

- 2S-4 Japan's Town Factories are World's Treasure -What they can and cannot make in China-  
*Hisayosi Hashimoto*

## General lecture (14:20-15:05)

### Carbon Nanoparticles

- 2-10 Quantitative analysis of detonation nanodiamonds with X-ray diffraction  
*Naoki Komatsu, Naoki Kadota, Takahide Kimura, Eiji Osawa*
- 2-11 Separation and Characterization of Polyne Molecules in Solution  
*Tomonari Wakabayashi, Tatsuya Doi, Rui Umeda, Motohiro Sonoda, Yoshito Tobe*
- 2-12 Matrix Effects on the Transformation of Nanodiamonds to Nano-Onions  
*Masaki Ozawa, Masayasu Inakuma, Makoto Takahashi, Eiji Osawa*

## Coffee Break (15:05-15:20)

## General lecture (15:20-15:50)

### Fullerene Solids

- 2-13 Crystal Structures of Discrete  $C_{60}$  Fullerides Stabilized by Appropriate Triphenylmethane Cations  
*Takahito Sugiura, Eiji Osawa, Hiroshi Moriyama*
- 2-14 Polymerization of  $C_{60}$  Molecules Induced by Hole / Electron Injection from a Scanning Tunneling Microscope Tip  
*Ryo Nouchi, Kosuke Masunari, Toshio Ohta, Yoshihiro Kubozono*

## Poster preview (15:50-16:40)

## Poster session (16:40-18:10)

### Chemistry of Fullerenes

- 2P-1 Trapping of S-Heterocyclic Carbene with C<sub>60</sub> Probe Technique  
*Hidefumi Nikawa, Tsukasa Nakahodo, Takahiro Tsuchiya, Takatsugu Wakahara, G. M. Aminur Rahman, Takeshi Akasaka, Yutaka Maeda, Michael T. H. Liu, Akira Meguro, Soichiro Kyushin, Hideyuki Matsumoto, Naomi Mizorogi, Shigeru Nagase*
- 2P-2 Regioselective Synthesis and Structure of Hepta(organo)[60]fullerene-Transition Metal Complexes  
*Takeshi Fujita, Yutaka Matsuo, Eiichi Nakamura*
- 2P-3 Kinetics of 1,3-Dipolar Cycloaddition of Diaryldiazomethanes with Fullerenes C<sub>60</sub> and C<sub>70</sub>  
*Hiroshi Kitamura, Nozomu Seike, Taijiro Higashi, Ken Kokubo, Takumi Oshima*
- 2P-4 Diastereoselective Complexation of Chiral Diphosphine and Ruthenium-Pentaorgano[60]fullerene  
*Yuichi Mitani, Yutaka Matsuo, Yu-Wu Zhong, Eiichi Nakamura*
- 2P-5 Application of C<sub>60</sub>-based amine-labeling reagents to MALDI-TOF MS analysis  
*Hiroki Tsumoto, Katsumasa Takahashi, Kohfuku Kohda, Takayoshi Suzuki, Hidehiko Nakagawa, Naoki Miyata*
- 2P-6 Mechanism of mechanochemical hydroxylation of fullerene  
*Takahiro Kubo, Eitaro Matsui, Hiroto Watanabe, Mamoru Senna*
- 2P-7 Effects of pressure and temperature on the solubility of C<sub>70</sub> in n-hexane  
*Shinichi Okada, Seiji Sawamura*
- 2P-8 Synthesis and Reactions of Novel Methano[60]fullerenes  
*Tomoyuki Tada, Yasuhiro Ishida, Kazuhiko Saigo*

### Metallofullerenes

- 2P-9 Recent progress of powder diffraction study of endohedral metallofullerene at SPring-8  
*Eiji Nishibori, Ikuya Terauchi, Masayuki Ishihara, Makoto Sakata, Masaki Takata, Yasuhiro Ito, Hisashi Umemoto, Hiroe Moribe, Takashi Inoue, Hisanori Shinohara*
- 2P-10 Synthesis of LaNd@C<sub>72</sub> and Fluorescence Measurement of Nd-metallofullerenes  
*Naomi Murata, Takeshi Kodama, Yoko Miyake, Shinzo Suzuki, Koichi Kikuchi, Yohji Achiba*
- 2P-11 Reactivity of La<sub>2</sub>@C<sub>78</sub> toward 2-Admantane-2,3-Diazirine: Structure Determination of Monoadduct La<sub>2</sub>@C<sub>78</sub>-(Ad)(I)  
*Baopeng Cao, Tsukasa Nakahodo, Takatsugu Wakahara, Takahiro Tsuchiya, Kaoru Kobayashi, Shigeru Nagase, Takeshi Akasaka*
- 2P-12 Radical Reaction of La@C<sub>82</sub> in Toluene  
*Yuta Takano, Akinori Yomogita, Takatsugu Wakahara, Takahiro Tsuchiya, Tsukasa Nakahodo, Yutaka Maeda, Takeshi Akasaka, Tatsuhisa Kato, Naomi Mizorogi, Shigeru Nagase*
- 2P-13 Structure and Properties of pure H<sub>2</sub>@C<sub>60</sub>  
*Misaho Akada, Katsumi Tanigaki, Yasujiro Murata, Koichi Komatsu, Toru Kakiuchi, Hiroshi Sawa*

### Fullerene Solids

- 2P-14 Structure of Fullerene Nanowhiskers ( )  
*Satoru Tsuchida, Satoru Motohashi and Hironori Ogata*
- 2P-15 Synthesis and structural investigation of fulleroid nanowhiskers  
*Satoru Motohashi, Satoru Tsuchida, Hironori Ogata*
- 2P-16 Photo-carrier generation and its transport process in pristine C<sub>60</sub> single crystals  
*Ryota Tanaka, Ikuko Akimoto, Ken-ichi Kan'no*
- 2P-17 Fabrication and Electrical Properties of FET devices Based on C<sub>60</sub> Nano-Whiskers  
*Kenichi Ogawa, Asato Ikegami, Hajime Tsuji, Tomohiro Kato, Nobuyuki Aoki, Kenji Adachi,*

## Carbon Nanoparticles

- 2P-18 Deposition of platinum nano particles on carbon nanohorn particles by electrochemistry and their magnetism  
*Motohiro Sugaya, Takayuki Inagaki, Masako Yudasaka, Shunji Bandow, Sumio Iijima*
- 2P-19 Simulation of high-energy ion/atom impact on nano-carbons: Electronic shake up and structural change  
*Yoshiyuki Miyamoto, Arkady Krasheninnikov, David Tomanek*

## Formation and Purification of Nanotubes

- 2P-20 Tailored Synthesis of Double Walled Carbon Nanotubes by Super Growth  
*Takeo Yamada, Tatsunori Namai, Kenji Hata, Jing Fan, Masako Yudasaka, Don N. Futaba, Kohei Mizuno, Motoo Yumura, Sumio Iijima*
- 2P-21 Influence of Co/Mo Ratio on Synthesis of Single-Walled Carbon Nanotubes from Carbon Monoxide  
*Toshiaki Nishii, Suguru Noda, Hiroshi Sugime, Naoto Masuyama, Yoichi Murakami, Shigeo Maruyama*
- 2P-22 Purification of double wall carbon nanotubes by dispersion  
*Hiromichi Yoshida, Satoshi Kikuchi, Toshiki Sugai, Hisanori Shinohara*
- 2P-23 Synthesis of single-wall carbon nanotubes by alcohol CCVD methods using mesoporous silica with different pore size  
*Yuya Izumi and Hironori Ogata*
- 2P-24 Dispersion and Separation of Small Diameter Single-Walled Carbon Nanotubes  
*Makoto Kanda, Yutaka Maeda, Shin-ichi Kimura, Tadashi Hasegawa, Yongfu Lian, Takatsugu Wakahara, Takeshi Akasaka, Said Kazaoui, Nobutsugu Minami, Toshiya Okazaki, Tetsuo Shimizu, Hiroshi Tokumoto, Jing Lu, Shigeru Nagase*
- 2P-25 Synthesis and characterization of single-walled carbon nanotubes by catalytic decomposition of alcohol  
*Yanli Zhao, Kazuyuki Seko, Kensuke Okumura and Yahachi Saito*
- 2P-26 Supported Ni catalysts of nominal submonolayers grew single-walled carbon nanotubes  
*Kazunori Kakehi, Suguru Noda, Shohei Chiashi and Shigeo Maruyama*
- 2P-27 Preparation of Single-Wall Carbon Nanotubes with Rh/Pd-Carbon Composite Rods in Nitrogen Atmosphere  
*Nobuyuki Asai, Shinzo Suzuki, Hiromichi Kataura, Yohji Achiba*
- 2P-28 Role of Bimetallic Catalysts for Growth of Single-Walled Carbon Nanotubes  
*Toshiya Murakami, Kazuya Mitikami, Satoru Ishigaki, Kazuyo Matsumoto, Kenji Kisoda, Koji Nishio, Toshiyuki Isshiki, Hiroshi Harima*
- 2P-29 Formation process of carbon nanocap from SiC(000-1) surface through thermal decomposition  
*T. Maruyama, Y. Kawamura, H. Bang, N. Fujita, T. Shiraiwa, K. Tanioku, Y. Hozumi, S. Naritsuka, M. Kusunoki*

## Endohedral Nanotubes

- 2P-30 Encapsulating p-nitroaniline into Single-Walled Carbon Nanotube  
*Takashi Murakami, Yuika Saito, Hiromichi Kataura, Kazuhito Tsukagoshi, Kazuhiro Yanagi, Yasumitsu Miyata, Satoshi Kawata*
- 2P-31 Formation of n-type double-walled carbon nanotubes by a Cs-plasma irradiation method  
*Yongfeng Li, Takeshi Izumida, Rikizo Hatakeyama, Toshiro Kaneko, Takeru Okada, Toshiaki Kato*
- 2P-32 Magnetic Analysis of Nano-peapods by Soft X-ray Magnetic Circular Dichroism (MCD) Spectroscopy  
*Ryo Kitaura, Haruya Okimoto, Tetsuya Nakamura, Yutaka Kitamura, Daisuke Ogawa and Hisanori Shinohara*

## Nanohorns

- 2P-33 High Yield Purification of Carbon Nanohorn  
*Goshu Tamura, Shunji Bandow, Sumio Iijima*
- 2P-34 Fractionation of Arc-Soot and dispersion of Pt-Ru Catalysts. (Reactivity with Methanol)  
*Keisuke Higashi, Hiroaki Niwa, Kenji Shinohara, Hirofumi Takikawa, Guochun Xu, Shigeo Itoh, Tatsuo Yamaura, Kouji Miura, Kazuo Yoshikawa*

## Properties of Nanotubes

- 2P-35 Stability of Field Emission Current from a Carbon Nanotube  
*Yasumoto Konishi, Hiroyoshi Tanaka, Lujun Pan, Seiji Akita, Yoshikazu Nakayama*
- 2P-36 Conductance of telescoped double-wall armchair nanotube  
*Ryo Tamura*
- 2P-37 Direct Observation of Inter-layer Interaction of Double-Walled Carbon Nanotubes by using UHV-STM  
*N. Fukui, H. Yoshida, T. Sugai, S. Heike, M. Fujimori, Y. Suwa, Y. Terada, T. Hashizume, H. Shinohara*
- 2P-38 Observation of Photoluminescence from Small-Diameter DWNTs Synthesized by the Zeolite-CCVD Method  
*Naoki Kishi, Satoshi Kikuchi, Toshiki Sugai, Hisanori Shinohara*
- 2P-39 Morphology effect of optical properties in single walled carbon nanotubes detected by THz to Vis-polarized spectroscopy  
*N. Akima, J.L. Musfeldt, H. Matsui, N. Toyota, H. Shimoda, O. Zhou, M. Shiraishi, Y. Iwasa*
- 2P-40 Exciton-photon matrix elements in single-wall carbon nanotubes  
*J. Jiang, R. Saito, Y. Oyama, K. Sato, J. S. Park*
- 2P-41 Electronic and Magnetic Properties of Finite-Length Carbon Nanotubes with Hydrogen Atoms Encapsulated  
*Masahiro Nigawara, Shigekazu Ohmori, Akihiro Ito, Kazuyoshi Tanaka*
- 2P-42 Resonance Raman and Photoluminescence Spectra of Suspended Single-Walled Carbon Nanotubes in Ceramics  
*Taro Ueno, Shingo Okubo, Tsuneaki Miyahara, Shinzo Suzuki, Yohji Achiba, Kazuhito Tsukagoshi, Toshiya Okazaki, Hiromichi Kataura*

## Application of Nanotubes

- 2P-43 Air-Stable N-type Single-Walled Carbon Nanotube Field Effect Transistors Functionalized by Amine Molecules  
*Tetsunori Matsumoto, Satoru Suzuki, Goo-Hwan Jeong, Yoshihiro Kobayashi, Yoshikazu Homma*
- 2P-44 Development of Micro-focused X-ray Source by Using Carbon Nanotube Field Emitter  
*Kunihiko Kawakita, Koichi Hata, Hideki Sato, Yahachi Saito*
- 2P-45 Spectral Properties of Single-Walled Carbon Nanotubes Dissolved in Aqueous Solutions of Biosurfactants  
*Naotoshi Nakashima, Ayumi Ishibashi*
- 2P-46 NIR Laser Irradiation toward SWNTs in Solution  
*Kaori Narimatsu, Hiromi Shinohara, Yasuro Niidome, Naotoshi Nakashima*
- 2P-47 Dielectrophoresis of SWNTs in a Microchip  
*Masashi Shinagawa, Hiroki Ago, Naoki Ishigami, Masaharu Tsuji, Tatsuya Ikuta, Koji Takahashi*

## Miscellaneous

- 2P-48 Metal-free Formation of Spiral Carbon Structures  
*Akira Koshio, Teruyuki Tanaka, Toshiki Sunouchi, Fumio Kokai*
- 2P-49 On Critical Sizes of Multiply-Charged Fullerene Clusters  
*Masato Nakamura, P. A. Hervieux*

**January 9th, Mon**

**Special lecture : 25min(Presentation)+5min(discussion)**

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

**Poster preview : 1min(Presentation),no discussion**

**Special lecture (9 : 00-9 : 30)**

3S-5 Super Growth: From Highly Efficient Impurity Free CNT Synthesis to Super-Capacitors and Much More  
*Kenji Hata*

**General lecture (9 : 30-10 : 15)**

**Formation and Purification of Nanotubes**

3-1 In-situ measurement of Raman scattering and AFM during laser-heated ACCVD growth process of SWNTs

*Shohei Chiashi, Yoichi Murakami, Yuhei Miyauchi, Shigeo Maruyama*

3-2 Formation of Single-Wall Carbon Nanotubes in Argon and Nitrogen Gas Atmosphere

*Shinzo Suzuki, Nobuyuki Asai, Hiromichi Kataura, Yohji Achiba*

3-3 Synthesis of Horizontally-Aligned SWNTs with Controllable Density on Sapphire Surface and their Polarized Raman Spectroscopy

*Hiroki Ago, Naoyasu Uehara, Ken-ichi Ikeda, Ryota Ohdo, Kazuhiro Nakamura, Masaharu Tsuji*

**Coffee Break (10 : 15-10 : 30)**

**General lecture (10 : 30-11 : 15)**

**Formation and Purification of Nanotubes**

3-4 Effects of typical metallic Elements added as Catalysts for production of DWCNTs by DC-Arc discharge method

*Hideki Inakura*

3-5 Selective Diameter-Control of Single-Walled Carbon Nanotubes by the Enhanced Direct-Injection-Pyrolytic-Synthesis (DIPS) Method

*Takeshi Saito, Satoshi Ohshima, Wei-Chun Xu, Koji Matsuura, Toshiya Okazaki, Motoo Yumura and Sumio Iijima*

**Application of Nanotubes**

3-6 Super Growth: Shape Engineerable Single Walled Carbon Nanotube Solid as Flexible Conducting Mesoporous Material

*Don N. Futaba, Kenji Hata, Tatsuki Hiraoka, Takeo Yamada, Kohei Mizuno, Yuhei Hayamizu, Tatsunori Namai, Yozo Kakudate, Osamu Tanaike, Hiroaki Hatori, Koji Miyake, Shinya Sasaki, Motoo Yumura, Sumio Iijima*

**General lecture (11 : 15-12 : 00)**

**Application of Nanotubes**

3-7 Fluorination of Carbon Nanotubes, Structures and Properties

*Hidekazu Touhara, Hideki Arikai, Yoshio Nojima, Fujio Okino, Y. A. Kim, Morinobu Endo, Shinji Kawasaki, Hiromichi Kataura, Masako Yudasaka, Sumio Iijima*

3-8 Nonlinear Optical Waveguide Device Using Carbon Nanotube-Polyimide Composite Material

*Shun Matsuzaki, Taro Itatani, Emiko Itoga, Masahiro Igusa, Hiromichi Kataura, Madoka Tokumoto, Kohtaro Ishida, Youichi Sakakibara*

3-9 Carbon nanotube transparent flexible transistors using solution process

*Tetsuo Takahashi, Taishi Takenobu, Takayoshi Kanbara, Kazuhito Tsukagoshi, Yoshinobu Aoyagi, Yoshihiro Iwasa*

## Lunch Time (12:00-13:20)

## Special lecture (13:20-13:50)

- 3S-6 Molecular Dynamics Simulations for Formations and Properties of Various Defects on Carbon Nano-Structures  
*Takazumi Kawai*

## General lecture (13:50-14:35)

### Application of Nanotubes

- 3-10 Individual solubilization of carbon nanotubes using polyimides  
*Masahiro Shigeta, Masaharu Komatsu, Naotoshi Nakashima*

### Properties of Nanotubes

- 3-11 Electronic Properties in Möbius Nano-carbon Materials  
*K. Harigaya*
- 3-12 Band Gap and Quasiparticle States in Carbon Nanotubes  
*Takashi MIYAKE, Yoshio AKAI, Susumu SAITO*

## Poster preview (14:35-15:25)

## Poster session (15:25-16:55)

### Chemistry of Fullerenes

- 3P-1 Photochemical reaction of C<sub>60</sub> with cyclic organosilicon compounds  
*Junko Nagatsuka, Tsukasa Nakahodo, Sachie Sugitani, Masahiro Kako, Takatsugu Wakahara, Yutaka Maeda, Takahiro Tsuchiya, Takeshi Akasaka, Yoshiko Sasaki, Osamu Ito, Kaoru Kobayashi, Shigeru Nagase*
- 3P-2 A New Effective Search Algorithm for C<sub>60</sub>R<sub>n</sub> Structure: Cones Product Strategy  
*Tatsuo Toida, Katsumi Uchida, Tadahiro Ishii, Hirofumi Yajima*
- 3P-3 Syntheses of water-soluble fullerene-chitosan conjugates and their radical scavenging activities  
*Katsumasa Nemoto, Hitoshi Sashiwa, Katsumi Uchida and Hirofumi Yajima*
- 3P-4 One Pot Synthesis of Highly Water Soluble Fullerenol  
*Hiroshi Tategaki, Sayako Kawahama, Kenji Matsubayashi, Hiroya Takada, Ken Kokubo, Takumi Oshima*
- 3P-5 Synthesis of Alkylated Pentamethyl[60]fullerene by Iridium Catalyzed C-H Bond Activation of Toluene  
*Akihiko Iwashita, Yutaka Matsuo, Eiichi Nakamura*
- 3P-6 Promoting effect of water-soluble fullerene derivatives on growth of neurites of PC-12 cells that were differentiated by nerve growth factor  
*Syo Kawahara, Yuki Fujisawa, Hiroki Tsumoto, Kohfuku Kohda, Takayoshi Suzuki, Hidehiko Nakagaw, Naoki Miyata*
- 3P-7 Mechanisms of mechanochemical oxidation of fullerene under oxygen atmosphere  
*Hiroto Watanabe, Eitaro Matsui, Takahiro Kubo, Mamoru Senna*
- 3P-8 Novel C<sub>60</sub>-Phthalocyanine Conjugates Having Open-Cage C<sub>60</sub> Skeleton  
*Naoki Hashimoto, Takamitsu Fukuda, Nagao Kobayashi*

### Metallofullerenes

- 3P-9 Endohedral Structures of Eu@C<sub>82</sub> and Gd@C<sub>82</sub>  
*Naomi Mizorogi, Shigeru Nagase*
- 3P-10 A New Metallofullerene Growth Mechanism II  
*Yohji Achiba*

- 3P-11 ESR Spectrum of La@C<sub>82</sub>(Ad) Single Crystal.  
*Ryuhei Nara, Yutaka Maeda, Takatsugu Wakahara, Takahiro Tsuchiya, Kazuhiro Takeuchi, Makoto Fukushima, Takeshi Akasaka, Tatsuhisa Kato*
- 3P-12 Synthesis and Characterization of Carbene Derivatives of La<sub>2</sub>@C<sub>80</sub>  
*Chika Someya, Michio Yamada, Takatsugu Wakahara, Takahiro Tsuchiya, Yutaka Maeda, Takeshi Akasaka, Naomi Mizorogi, Shigeru Nagase*
- 3P-13 Ion Mobility Studies on Sc Metallofullerenes  
*T. Sugai, M.F.Jarrold, H. Shinohara*

## Fullerene Solids

- 3P-14 Fabrication and characterization of solution-processed Pd-C<sub>60</sub> polymer-based thin film transistors  
*Yukitaka Matsuoka, Kagan Kerman, Eiichi Tamiya, Akihiko Fujiwara*
- 3P-15 Fabrication of high performance fullerene field-effect transistor devices and their performance control  
*Takayuki Nagano, Kenji Ochi, Haruka Kusai, Toshio Ohta, Kumiko Imai, Akihiko Fujiwara, Yoshihiro Kubozono*
- 3P-16 Surface Modification using Self-assembled Monolayers on the Electrodes in Organic FETs  
*Nobuya Hiroshiba, Hisao Ishi, Ryotaro Kumashiro, Katsumi Tanigaki*
- 3P-17 Fabrication of field-effect transistor devices with three types of fullerodendrons by solution process, and their electronic properties  
*Haruka Kusai, Takayuki Nagano, Kumiko Imai, Yoshihiro Kubozono, Yuuki Sako, Yutaka Takaguchi, Akihiko Fujiwara*

## Carbon Nanoparticles

- 3P-18 Resonance Raman Spectra of Polyynes Molecules  
*Tatsuya Doi, Tomonari Wakabayashi*

## Formation and Purification of Nanotubes

- 3P-19 The ultrasonication power density effects on carbon nanotube dispersion in aqueous solutions  
*Catalin Romeo Luculescu, Toru Ishii, Teruo Takahashi, Katsumi Uchida, Tadahiro Ishii, and Hirofumi Yajima*
- 3P-20 Gas Analysis of CVD Processes for High-Yield Synthesis of Single-Walled Carbon Nanotubes  
*Naoyasu Uehara, Hiroki Ago, Shingo Imamura, Masaharu Tsuji*
- 3P-21 Purification of single wall carbon nanotube made by arc plasma jet method  
*Tomoko Suzuki, Kenji Suhama, Xinluo Zhao, Sakae Inoue, Yoshinori Ando*
- 3P-22 Growth of carbon nanotubes on Si substrates with nanoprotusions  
*Mai Matsubayashi, Hideki Sato, Koichi Hata, Hideto Miyake, Kazumasa Hiramatsu, Akinori Ohshita and Yahachi Saito*
- 3P-23 Dispersion behavior and spectroscopic properties of SWNTs in various biopolymer solutions  
*Teruo Takahashi, Catalin Romeo Luculescu, Katsumi Uchida, Tadahiro Ishii, Hirofumi Yajima*
- 3P-24 Selective Chemical Vapor Growth of Vertically Aligned Carbon Nanotubes on Patterned Metal Layers  
*Hiroki Okuyama, Nobuyuki Iwata, Hiroshi Yamamoto*
- 3P-25 Preparation of Carbon Nanowires by Using Carbon Electrode Containing Fe Catalyst  
*M. Endo, A. Mizutani, X. Zhao, Y. Ando*

## Endohedral Nanotubes

- 3P-26 Coalescence of C<sub>60</sub> in a peapod under electron irradiation  
*Masanori Koshino, Kazutomo Suenaga, Eiichi Nakamura*

## Nanohorns

- 3P-27 Large Scale Production of Carbon Nanohorns with High Purity  
*Takeshi Azami, Daisuke Kasuya, Tsutomu Yoshitake, Yoshimi Kubo, Masako Yudasaka, and Sumio Iijima*

## Properties of Nanotubes

- 3P-28 Mechanism of Plastic deformation of Carbon Nanotubes  
*Hideki Mori, Shigenobu Ogata, Seiji Akita, Yoshikazu Nakayama*
- 3P-29 FET Properties of Surface Silylated Carbon Nanotubes  
*Ryotaro Kumashiro, Hirotaka Ohashi, Takeshi Akasaka, Yutaka Maeda, Takeshi Izumida, Rikizo Hatakeyama, Katsumi Tanigaki*
- 3P-30 High Field Magneto-optical Study of Unbundled Single-walled Carbon Nanotubes to 120 T  
*Hiroyuki Yokoi, Noritaka Kuroda, Yeji Kim, Kanae Miyashita, Said Kazaoui, Nobutsugu Minami, Eiji Kojima, Kazuhito Uchida, Shojiro Takeyama*
- 3P-31 Environmental effects of PL/Raman spectra from suspended SWNTs  
*Yoshihiro Kobayashi, Daisuke Takagi, Yoshikazu Homma*
- 3P-32 Raman study of laser-induced defects in single-wall carbon nanotube bundles  
*Takashi Uchida, Masaru Tachibana, Kenichi Kojima*
- 3P-33 Optical Properties of Double-Walled Carbon Nanotubes  
*Taro Ueno, Shingo Okubo, Tsuneaki Miyahara, Shinzo Suzuki, Yohji Achiba, Toshiya Okazaki, Kazuhito Tsukagoshi, Hiromichi Kataura*
- 3P-34 Lithium Ion Storage Property of Peapod  
*Shinji Kawasaki, Yuki Iwai, Ikumi Watanabe, Hiromichi Kataura*
- 3P-35 Energetics of graphene intrinsic defects  
*Kazuaki Yamashita, Mineo Saito*

## Application of Nanotubes

- 3P-36 Suspended SWNTs Functionalization with DNA and Metal Nanoparticles  
*G.-H. Jeong, T. Matsumoto, S. Suzuki, Y. Kobayashi, Y. Homma*
- 3P-37 AFM imaging of wrapped multi wall carbon nanotube in DNA  
*Hirotoshi Takahashi, Shigenori Numao, Shunji Bandow, Sumio Iijima*
- 3P-38 Derivatization of SWCNT and VGCF by a radical addition reaction  
*Takahiro Gunji, Minako Akazawa, Koji Arimitsu, Yoshimoto Abe*
- 3P-39 Separation of Semiconducting and Metallic Single-Walled Carbon Nanotubes using a Long-Chain Benzenediazonium Compound  
*Shouhei Toyoda, Yasuhiko Tomonari, Masataka Hiwatashi, Hiroto Murakami, Naotoshi Nakashima*
- 3P-40 Excellent field emission from camphor-grown carbon nanotubes  
*Kyohei Yasuda, Mukul Kumar, Yoshinori Ando, Mineo Hiramatsu*
- 3P-41 Novel Photosynthetic Model Nanohybrids Composed of Single-Walled Carbon Nanotube Functionalized with Porphyrinic Peptides  
*Kenji Saito, Nathalie Solladié, Shunichi Fukuzumi*
- 3P-42 Photoinduced Electron Transfer Reduction of Cup-Stacked-Type Carbon Nanotube  
*Masataka Ohtani, Kenji Saito, Shunichi Fukuzumi*

## Miscellaneous

- 3P-43 FT-ICR Study of Reaction of Cobalt Clusters with Alcohol, Ether and Hydrocarbon  
*Daisuke Yoshimatsu, Kohei Koizumi, Naoki Suyama, Shigeo Maruyama*
- 3P-44 Preclinical Safety Evaluation of Fullerenes: Acute Oral Administration and Mutagenic Studies  
*Yuki Fujimoto, Hiroya Takada, Tomohisa Mori, Kenji Matsubayashi, Shinobu Ito, Nobuhiko Miwa, Toshiko Sawaguchi*