Poster Session

P-1 Nano-biology and soft materials

1. “Expression and Purification of Proteins Related to Arachidonate Cascade for Development of Novel Drugs”
   Takayoshi Matsubara[1], Sang Woo Kim[2], Hidezo Mori[1], Hiroyasu Inoue[3]
   [1]Department of Cardiac Physiology, National Cardiovascular Center Research Institute, [2]Division of Protein Crystallography, Institute for Protein Research, Osaka University, [3]Department of Food Science and Nutrition, Nara Women’s University

2. “Preparation of Biodegradable Nanoparticles Based on Amphiphilic Polymer and Their Applications for Vaccine Carrier”
   Takami Akagi, Tatsuo Kaneko, Toshiyuki Kida, Mitsuru Akashi
   Department of Applied Chemistry, Graduate School of Engineering, Osaka University

3. “Nano-fabricated Spheroid Sheet as Engineered Tissue Construct”
   Hidenori Otsuka
   National Institute for Materials Science

4. “Water-dispersed Carbon Nanoparticles and Their Potential Applications to Drug Carriers”
   Tatsuya Murakami, Jing Fan, Hirohide Sawada, Masako Yudasaka, Sumio Iijima, Kunihiro Tsuchida, Kiyotaka Shiba
   Institute for Comprehensive Medical Science, Fujita Health University

5. “In Vivo Imaging and Tracking of Single Complexes of Antibody Conjugated Quantum Dot in Tumor of Living Mice”
   Hiroshi Tada[1], Hideo Higuchi[2], Tomonobu M Watanabe[2], Noriaki Ohuchi[1]
   [1]Department of Surgical Oncology, Graduate School of Medicine, Tohoku University, [2]Biomedical Engineering Research Organization

6. “Construction of Cytotoxicity Sensing Cells for Micro-analyzing Device”
   Ken-Ichi Wada, Akiyoshi Taniguchi, Jun Kobayashi, Masayuki Yamato, Teruo Okano
   Institute for Materials and Science, Biomaterials Center ; CREST

7. “Synthesis of Novel Nb Ions Substituted Hydroxyapatite Ceramics and Its Osteogenesis Property”
   Masato Tamai, Ryusuke Nakaoka, Kazuo Isama, Toshie Tsuchiya
   Division of Medical Devices, National Institute of Health Sciences

8. “Single Molecule Nano Measurement of Actomyosin Bio-motor.”
   Hiroto Tanaka, Toshio Yanagida
   Creation and Application of Soft Nano-Machine, the Hyperfunctional Molecular Machine, CREST, JST

9. “Cell Membrane Compartmentalization as Visualized by Rapid-Freeze, Deep-Etch Electron Tomography”

N. Morone[1], T. Fujiwara[2], R. Kasai[2], S. Yuasa[1], Y. Kozuka[1], J. Usukura[3], A. Kusumi[2]

[1]National Institute of Neuroscience, National Center of Neurology & Psychiatry, [2]ICORP-JST, Institute of Frontier Medical Science, Kyoto University, [3]Department of Anatomy and Cell Biology, Nagoya University

10. “Single-molecule Analysis of the Myosin IX by Optical Trap Nanometry”

Takashi Ohki and Naoki Mochizuki

National Cardiovascular center research Institute

11. “Bio-nano- and Bio-micro-devices Based on Protein Motors’ Function”

Yuji Shitaka[1], Reo Kometani[2], Hitoshi Sakakibara[1], Hiroaki Kojima[1], Shinji Matsui[1], Kazuhiro Oiwa[1,2]

[1]LASTI, Graduate School of Science, University of Hyogo, [2]Kansai Advanced Research Center, National Institute of Information and Communications Technology

12. “Novel Molecular Motor Protein-DNA Adducts for Nanoscale Engineering”

Junichiro Yajima[1,2] and Robert A.Cross[2]

[1]Japan Society for the Promotion of Science, postdoctoral fellowships for research abroad, [2]Marie Curie Research Institute

13. “Toward Construction of Vibrating Bio-nanomachines Based on the Mechanism of Flagellar Beating.”

Toshiki Yagi, Susumu Aoyama, Ritsu Kamiya

Department of Biological Science, Graduate School of Scinences,University of Tokyo

14. “Bi-functionality of Ti-binding Peptide-1 Facilitates Nano-fabrication of Heterologous Multi-layers Composed of Inorganic Nano-particles”

Ken-Ichi Sano[1], Hiroyuki Sasaki[2], Kiyotaka Shiba[1]

[1]Dept. Protein Engineering, Cancer Institute, CREST/JST, [2]Dept. Mol. Cell Biol., DNA Inst., Jikei Med. Univ.

15. “Studies on Sensitive and Compact Molecular Sensors − Toward Solution and Environment Monitoring − ”

Tohru Nakamura, Emiko Koyama, Hideo Tokuhisa, Masatoshi Kanesato, Yasuhisa Naitoh, Huihia Deng, Kiyomi Tsukagoshi, Takao Ishida, Wataru Mizutani, Yasuzo Suzuki, Yuji Kawanishi, Tetsuo Yatabe, Takashi Funaki, Yukihiro Shimoi, Nobuhiko Kobayashi, Shuji Abe, Hiroshi Yokoyama

National Institute of Advanced Industrial Science and Technology (AIST), Synthetic Nano-Function Materials Project (SYNAF/NEDO)

16. “Physics of Carrier Injection and Transport in Organic Thin Films under High Current Densities”

Toshinori Matsushima[1] and Chihaya Adachi[1,2,3]

[1]Japan Science and Technology Agency, [2]Chitose Institute of Science and Technology, [3]Center for Future Chemistry, Kyushu University

17. “Polymer Based Nanophotonic Device for Optoelectronic Application”
S. Yokoyama, S. Mashiko, M. Nakao, K. Nishio, H. Masuda
National Institute of Information and Communications Technology

18. “Novel Structural Analysis by Transmission Electron Microtomography in Polymeric Materials.”
Yukihiro Nishikawa, Hiroshi Jinnai, Toshio Nishi
Kyoto Institute of Technology

19. “Nano-sized Dendrimer Catalysts with a Rhodium *N*-Heterocyclic Carbene at the Core: Synthesis, Characterization and Catalysis”
Tetsuaki Fujihara, Hiromichi Sato, Yasushi Obora, Makoto Tokunaga, Yasushi Tsuji
Catalysis Research Center and Division of Chemistry, Graduate School of Science, Hokkaido University, CREST, Japan Science and Technology Agency (JST)

20. “Electron Transport Properties of Molecular Junctions using Porphyrin Derivatives”
Yutaka Noguchi, Takashi Nagase, Rieko Ueda, Toshiya Kamikado, Tohru Kubota, Shinro Mashiko
Kansai Advanced Research Center, National Institute of Information and Communications Technology

21. “Construction of Bio-molecular Devices Based on Sequential Self-assembly”
Keiichi Adachi, Kaoru Ojima, Masateru Taniguchi, Takuya Matsumoto, Tomoji Kawai
CREST, JST, ISIR, Osaka University

22. “Nanostructure Formation of 3,4,5-tris(dodecyloxy)benzamide N-substituted with Oligo(ethylene glycol) of Various Length in Water”
T. Yoshitomi[1,2], H. Kawakami[2,3], K. Toma[2,3], R. Tsunashima[4], T. Nakamura[4], M. Furuhata[5] and Y. Maitani[5]
[1]Tokai University, [2]The Noguchi Institute, [3]CREST/JST, [4]Hokkaido University, [5]Hoshi University

P-2 Nano-materials and nano-process

1. “Lipid Nanotubes: Diameter and Surface Control, and applicatioins”
Mitsutoshi Masuda and Toshimi Shimizu
Nanoarchitectonics Research Center (NARC), National Institute of Advanced Industrial Science and Technology (AIST)

2. “Nano-devices with Carbon Nanotube Building Blocks”
Tomohiro Yamaguchi, Satoshi Moriyama, Tomoko Fuse, Daiju Tsuya, Masaki Suzuki, Bao-Ping Zhang, Takao Shiokawa, Koji Ishibashi
Advanced Device Laboratory, RIKEN, The Institute of Physical and Chemical Research

3. “Manipulation of Nano/micro Particles, Carbon Nanotubes and Cells using a Rotational Magnetic Field”

Hisao Morimoto, Yutaka Nagaoka, Nicole Grobert[1], Toru Maekawa
Bio-Nano Electronics Research Centre, Toyo University, Department of Materials, University of Oxford, UK

4. "Camphor-grown Carbon Nanotubes: One Step closer to Practical Application"
Mukul Kumar, Yoshinori Ando
21st Century COE Program: Nanofactory, Meijo University, Nagoya

5. "Near Field nanoimaging of Nanocarbon and Biomolecules"
Taro Ichimura, Norihiko Hayazawa, Mamoru Hashimoto, Yasushi Inouye, Satoshi Kawata
Department of Applied Physics, Osaka University

6. "Synthesis of Vertically Aligned Carbon Nanowalls using Plasma Enhanced Chemical Vapor Deposition with Radical Injection"
Seigo Takashima[1], Mineo Hiramatsu[2], Masaru, Hori[1]
[1]Nagoya University, [2]Meijo University

7. "Carbon Nanotube Spin-valve Structures with Different Ferromagnrtic Electrodes"
Yasuhide Ohno, Kazuki Narumi, Kenzo Maehashi, Koichi Inoue, Kazuhiko Matsumoto
The Institute of Scientific and Industrial Research, Osaka University

8. "Diameter Controlled Growth of Carbon Nanotubes from Size-classified Catalyst Nanoparticles"
Shintaro Sato, Akio Kawabata, Daiyu Kondo, Mizuhisa Nihei, Yuji Awano
Fujitsu Limited., Fujitsu Laboratories Ltd. , Nanotechnology Research Center

9. "A Novel Single-Chain Magnet Constructed by a Twisted Arrangement of Easy-Plane Anisotropy"
Takashi Kajiwara, Motohio Nakano, Yukihiro Kaneko, Shinya Takaishi, Masahiro Yamashita, Norimichi Kojima
Graduate School of Science, Tohoku University

10. "Nanoparticles for Spintronics Devices"
F. Ernult, K. Yakushiji, S. Mitani, K. Takanashi
Institute for Materials Research, Tohoku University

11. "Colossal Electro-Resistance Memory of Perovskite-Oxides"
Akihito Sawa, Takeshi Fujii, Masashi Kawasaki, Hiroshi Akoh, Yoshinori Tokura
Correlated Electron Research Center (CERC), National Institute of Advanced Industrial Science and Technology (AIST)

12. “I-V Characterization of LSCO/YBCO Ramp-edge Junctions”
L. B. Gómez[1,3], T. Kubo[1], Y. Fukai[2,3], M. Inoue[2,3], A. Maeda[1,3], and A. Fujimaki[2,3]
[1]Department of Basic Sciences, The University of Tokyo, and [2]Department of Quantum Engineering, Nagoya University [3]CREST, Japan Science and Technology Agency (JST)

13. “Preparation of Nano-sized Perovskite-type Oxide Catalysts in Pore of Alumina Support and its Catalytic Activity for Propane Oxidation”
Hajime Kusaba, Teruaki Asada, Teppei Kayama, Kazunari Sasaki, and Yasutake Teraoka
Department of Molecular and Material Sciences, Faculty of Engineering Sciences, Kyushu University

14. “Development of High-*T*c Superconductor by Control of Nano-microstrucutre”
Shigeru Horii, Kaname Matsumoto, Masashi Mukaida, Yutaka Yoshida, Ataru Ichinose, Jun-ichi Shimoyama, Kohji Kishio
Department of Applied Chemistry, The University of Tokyo

15. “Study on Thermal Diffusivity for Sn Doped In_2O_3 (ITO) Films by Nanosecond Thermoreflectance Measurement”
Yasushi Sato[1], Amica Miyamura[1], Yuzo Shigesato[1], Takashi Yagi[1,2], Naoyuki Taketoshi[1,2], and Tetsuya Baba[1,2]
[1]School of Science and Engineering, Aoyama Gakuin Universit, [2]National Metrology Institute of Japan, Advanced Industrial Science and Technology (AIST)

16. “Nano-structure Control of Ceramic Layers by Electron Beam PVD”
Norio Yamaguchi, Hideaki Hikosaka, Mineaki Matsumoto and Hideaki Matsubara
Japan Fine Ceramics Center

17. “Microfabrication of Glasses by Ultrafast-pulsed Laser”
Nobuhito Takeshima[1], Yoshihiro Narita[1], Shuhei Tanaka[1], Kazuyuki Hirao[2]
[1]New Glass Forum, [2]Kyoto University

18. “Giant Thermopower of the 2DEG Localized at the Heterointerface of $TiO_2/SrTiO_3$”
Hiromichi Ohta, Kenji Nomura, Shingo Ohta, Masahiro Hirano, Hideo Hosono, Kunihito Koumoto
Nagoya University / CREST, JST / ERATO-SORST, JST / Tokyo Institute of Technology

19. “Nano-modification of Transparent Materials using Ultrafast Pulse Laser”
Yasuhiko Shimotsuma[1], Jianrong Qiu[2], Kiyotaka Miura[3], Peter G. Kazansky[4], Kazuyuki Hirao[4]
[1]Fukui Institute for Fundamental Chemistry, Kyoto University, [2]Zhejiang University, [3]Department of Material Chemistry, Kyoto University, [4]Optoelectronics Research Centre, University of Southampton

20. “Conformational and Chemical Reactivity Changes of Polymer Molecules in a Microchannel Laminar Flow Device”

Kenichi Yamashita, Yoshiko Yamaguchi, Takeshi Honda, Masaya Moyazaki, Hideaki Maeda
Nanotechnology Research Institute, National Institute of Advanced Science and Technology (AIST)

21. "Assembly of Nanoparticles on Charged Surface Made by Rubber Stamp Contact"
Tazumi Nagasawa, Naofumi, Hiraoka, Yoshiaki Nakamura & Isao Matsui
Japan Chemical Innovation Institute

22. "E-beam Lithography for Magnetic Devices"
B. Vilquin, B. Blein, T. Arnal, P. Lecoeur, A.M. Haghiri
Institute d'Electronique Fondementale, Universite Paris-Sud, CNRS UMR 8622, Bat. 220, 91405 Orsay Cedex, France

23. "Dissociative Adsorption of H_2 on the Electrode Catalyst of Fuel Cell"
Takashi Tokumasu, Kanako Hara and Katsuhide Ohirai
Institute of Fluid Science, Tohoku University

24. "Degradation Mechanism Analysis of Structural Materials in Operating Energy Conversion Systems: Computational Chemistry Study"
Ken Suzuki, Hiroyuki Ito, Momoji Kubo, Hideo Miura, Akira Miyamoto and Tetsuo Shoji
Fracture and Reliability Research Institute, Graduate School of Engineering, Tohoku University

P-3 Nano-IT devices and physics and metrology

1. "Simulation of Ultra Shallow Junction Formation by Dopant Diffusion"
Nik Hazura N Hamat, Ibrahim Ahmad, Uda Hashim, Burhanuddin Yeop Majlis
Microfabrication Cleanroom, School of Microelectronic Engineering,Northern Malaysia University College of Engineering

2. "Device Applications of Natural Nanostructures Embedded in Ionic Semiconductors"
Toshio Kamiya and Hideo Hosono
Tokyo Institute of Technology

3. "Synthesis in Supercritical Water of Nanophased ZnO based Catalysts for Biomass Conversion"
C. Levy, K. Sue; M. Watanabe, Y. Aizawa, H. Inomata
Research Center for Carbon Recycling and Energy, Tokyo Institute of Technology

4. "Structural and Luminescence Properties of In-rich $InxGa_{1-x}N$ Layers Grown by Radio-frequency Plasma-assisted Molecular-beam Epitaxy"
Hiroyuki Naoi[1], Masahito Kurouchi[2], Shinya Takado[2], Daisuke Muto[2], Tsutomu Araki[2], Hyunseok Na[1], and Yasushi Nanishi[2]
[1]Center for Promotion of the COE Program, [2]Department of Photonics, Ritsumeikan University

5. "Spin Correlation in a Double-quantum-dot Device"
H. Tamura, S. Sasaki, S. Kang, K. Kitagawa, M. Yamaguchi, S. Miyashita, T. Maruyama, T. Akazaki,

Y. Hirayama and H. Takayanagi
NTT Basic Research Laboratories

6. “Spin Hall Effect in Semiconductors”
Shuichi Murakami
Department of Applied Physics, University of Tokyo

7. “Advances in Quantum-Dot Based Single Photon Sources and Related Nanostructure for Quantum Information Technology”
Yasuhiko Arakawa, Satoshi Iwamoto, Tatsuya Usuki, Motomu Takatsu, Toshiyuki Miyazawa, Satoshi Kako, and Toshihiro Nakaoka
Nanoelectronics Collaborative Research Center, Institute of Industrial Science and Research Center for Advanced Science and Technology, University of Tokyo

8.“Nonlinear Optical Response of Excitons in GaAs Nano-thin Films”
O. Kojima[1,2], T.Is[1,2], M.Tsuchiya[1,2], J. Ishi-Hayase[1], and M. Sasaki[1]
[1]National Institute of Information and Communications Technology, [2]CREST, Japan Science and Technology Agency

9. “Controlling the Density of 1.3 μm-InAsSb Quantum Dots Grown by Periodic Supply Epitaxy”
A Ueta[1], K Akahane[1], S Goz[1], N Yamamoto[1], N Ohtani[2], M. Tsuchiya[1]
[1]National Institute of Information and Communications Technology, [2]Doushisya-University

10. “Synthesis of Monodisperse Ultrapure GaN Nanoparticles by MOCVD”
Yutaka Hayashi, Yasushi Azuma, Manabu Shimada, Kikuo Okuyama
Graduate School of Engineering, Hiroshima University

11. “Fabrication of Ultra-thin Ge-on-Insulator (GOI) Layers by Ge-condensation Technique”
S. Nakaharai, T. Tezuka, E. Toyoda, N. Hirashita, Y. Moriyama, T. Maeda, T. Numata, N. Sugiyama, S. Takagi
New Transistor Gr, MIRAI(ASET)

12. “Focused Ion Beam Patterning of Silicon / HOPG Graphite Heterostructures and its Application to Nanobiology”
Pascal Martin, Franck Rose, and Hideki Kawakatsu
The University of Tokyo

13. “Electron Transport through Molecular Junctions”
Akinori Umeno, Tetsuo Akasaka, Murat Gel, Hiroyuki Fujita, Kazuhiko Hirakawa
Institute of Industrial Science, University of Tokyo

14. “Formation and Characterization of Ultrahigh Density Si, Ge-based Nanodots on Ultrathin Si Oxide Films.”
Yoshiaki Nakamura[1,2], Alexander A. Shklyaev[1,2], Sung-Pyo Cho[2,3], Nobuo Tanaka[2,3], and Masakazu Ichikawa[1,2]

[1]The University of Tokyo, [2]CREST-JST, [3]Nagoya University ESI

15. “Covalently Immobilization of Metal Nanoparticles on Silicon Substrates and its Structural Examinations”
Tetsu Yonezawa
Department of Chemistry, Graduate School of Science, The University of Tokyo

16. “Self-Assembled Template Method for Growth of Nanostructures on Si(001)”
J.H.G.Owen, K.Miki
International Centre for Young Scientists and Nanomaterials Laboratory, NIMS.

17. “Stress Control on Silicon Surface using Polymer Film”
S. Igarashi[1,2], A. Itakura[1,2], M. Toda[1,3,5], M. Kitajima[1,4], L. Chu[5], A. N. Chifen[5], R. Förch[5], and R. Berger[5]
[1]National Institute for Materials Science, [2]Japan Science and Technology Agency, [3]Osaka University, [4]University of Tsukuba, and [5]Max Planck Institute for Polymer Research

18. “NC-AFM, STS, and Adsorption Studies on Si(111)-c(2x8)”
F.Rose, S.Kawai, T.Ishii, and H.Kawakatsu
The University of Tokyo

19. “Fabrication of Multiple-Stacked Si Quantum Dots and Its Application to Light Emitting Diodes”
Katsunori Makihara, Yoshihiro Kawaguchi, Mitsuhisa Ikeda, Hideki Murakami, Seiichiro Higashi and Seiichi Miyazaki
Department of Electrical Engineering, Graduate School of Advanced Sciences of Matter, Hiroshima University

20. “Development of Certified Standard Reference Material for Depth Analysis in the R&D of 3D Nanoscale CRM Project”
Yasushi Azuma, Zhang Lulu, Shin-ya Terauchi, Toshiyuki Fujimoto, and Isao Kojima
Materials Characterization Division, National Metrology Institute of Japan, National Institute of Advanced Industrial Science and Technology

21. “Development of Ultrafast Time-resolved Fluorescence Microscope: Femtosecond Dynamics Imaging Microscopy”
Tatsuya Fujino[1,2], Takuya Fujima[1], Tahei Tahara[1]
[1]RIKEN(The Institute of Physical and Chemical Research), [2]Tokyo Metropolitan University

22. “Thermal Diffusivity Measurements of Thin Films using Femto-, Pico- and Nano-second Pulse Laser.”
Takashi Yagi, Naoyuki Taketoshi, Hideyuki Kato and Tetsuya Baba
National Metrology Institute of Japan (NMIJ),National Institute of Advanced Industrial Science and Technology (AIST)

23. “Polarized Guide-collection-mode Near-field Scanning Optical Microscopy”

Tadashi Mitsui, Kazuaki Sakoda, Giyuu Kido
Nanomaterials Laboratory, National Institute for Materials Science

24. "Broad Band Superprism Effect of Triangular One-dimensional Ta_2O_5 Photonic Crystal Embedded in Slab Waveguide"
Kazuaki Oya[1], Tatsuhiro Nakazawa[2], Shigeo Kittaka[2], Keiji Tsunetomo[2], Kenji Kintaka[3], Junji Nishii[3], Kazuyuki Hirao[4]
[1]New Glass Forum, [2]Nippon Sheet Glass Co., Ltd , [3]AIST, [4]Kyoto University

25. "Recombination Dynamics in $InxGa_{1-x}N$ Quantum Wells by Near-field Photoluminescence Spectroscopy"
Akio Kaneda[1], Mitsuru Funato[1], Yukio Narukawa[2], Takashi Mukai[2], and Yoichi Kawakamii[1]
[1]Dept. Of Electronic Science and Engineering, Kyoto University, [2]Nitride Semiconductor Research Lab.,Nichia Corp.

26. "Novel Ways to Control the Motion of Small Particles and Quanta"
Sergey Savel'ev and Franco Nori
Digital Materials Laboratory, Frontier Research System, RIKEN

27. "Study on Nanoscale Magnetic Structures by Spin-Polarized Scanning Tunneling Spectroscopy"
A. Yamasaki[1], T. Kawagoe[2], T. Miyamachi[1], Y. Iguchi[1], W. Wulfhekel[3], R. Hertel[3], J. Kirschner[3], S. Suga[1]
[1]Graduate school of Engineering Science, Osaka University, [2]Osaka Kyoiku University, [3]Max-Planck Institut fur Mikrostrukturphysik

28. "Efficient Design of Logic Circuits on Array-structured Nanocomputers"
Jia Lee, Ferdinand Peper, Susumu Adachi, Shinro Mashiko
National Institute of Information and Communications Technology