

## Poster Session

3<sup>rd</sup> March, 2011

### Nano-Materials

- PM-1      *Synthesis, Structure Characterization, and Photoluminescence of New Family of Layered Rare-earth Hydroxides Rigidly Pillared by Sulfate*  
**Jianbo Liang**   NIMS, JAPAN
- PM-2      *An alkali-metal ion extracted layered compound as a precursor for metastable phase synthesis: Low temperature conversion of  $K_{0.8}Ti_{1.73}Li_{0.27}O_4$  into brookite*  
**Tadashi C. Ozawa**   NIMS, JAPAN
- PM-3      *Controlled Alignment of Fullerene Nanowhiskers through Self-Assembly at Air-Water Interface*  
**Venkata Krishnan**   NIMS, JAPAN
- PM-4      *Mechanical Tuning of Molecular Machines for Nucleoside Recognition at the Air-Water Interface by the Hand-Operating Nanotechnology*  
**Taizo Mori**   NIMS, JAPAN
- PM-5      *Self-assembly and Reassembly of Molecular Nanowires of Trigeminal Porphyrins*  
**Jonathan P. Hill**   NIMS, JAPAN
- PM-6      *Two-Dimensional Nanodots Formation through Interfacial Organization*  
**Keita Sakakibara**   NIMS, JAPAN
- PM-7      *Development of Stress-responsive Polymeric Drug Carrier*  
**Hironori Izawa**   NIMS, JAPAN
- PM-8      *Pyrazinacenes : Aza Analogues of Acenes*  
**Gary J. Richards**   NIMS, JAPAN
- PM-9      *BN nanospheres as CpG ODN carrier for activation of toll-like receptor 9*  
**Chunyi Zhi**   NIMS, JAPAN
- PM-10      *Single-Crystalline  $In_2Ge_2O_7$  Nanobelts for High-Performance Deep-Ultraviolet Solar-Blind Photodetectors*  
**Liang Li**   NIMS, JAPAN
- PM-11      *Graphene-like BN nanoribbons: fabrication and improved conductivity*  
**Haibo Zeng**   NIMS, JAPAN
- PM-12      *Phonon-Assisted Electron Emission from Individual Carbon Nanotube Shell*  
**Xianlong Wei**   NIMS, JAPAN
- PM-13      *Mechanical properties of boron nitride nanobamboos by in situ TEM: the influence of nanointerface geometry*  
**Dai-Ming Tang**   NIMS, JAPAN
- PM-14      *Molecule Manipulation on Patterned-Polar Surface of Ferroelectric Crystals*

**Kenji Kitamura** NIMS, JAPAN

PM-15 *Artificial Design of Perovskite Superlattices using Perovskite Nanosheets.*

**Bao-Wen Li** NIMS, JAPAN

PM-16 *Ba<sub>4</sub>XTa<sub>10</sub>O<sub>30</sub>, X = Co, Mg, Zn, and Ni: Novel Quantum Paraelectric Compounds*

**Lin Wang** NIMS, CHINA

PM-17 *Nanostructural Carbide-Derived Carbon (CDC) Synthesized in Solutions*

**Chunfeng Hu** NIMS, JAPAN

PM-18 *Photo-electrochemical reaction rate of dye-sensitized solar cells composed of textured photo-anode.*

**Mamiko Kawakita** NIMS, JAPAN

PM-19 *Fabrication and Analysis of Oriented LiCoO<sub>2</sub> Using Slip Casting in a Strong Magnet Field*

**Hideto Yamada** University of Tsukuba, JAPAN

PM-20 *Nano-particles Formed by Pulsed Discharge of Powders Sealed in Tubes*

**Satoru Ishihara** Nagaoka University of Technology, JAPAN

PM-21 *Synthesis, Characterization and Application of ZnO Nanoparticles Encapsulated in Ordered Mesoporous Carbon*

**Ulka Suryavanshi** Nagoya Institute of technology, JAPAN

PM-22 *Combination of organic and inorganic materials for novel nanocapsule design*

**Elena Kozhunova** Lomonosov Moscow State University, Russia

PM-23 *Self-assembly of porphyrin and PAMAM dendrimer into a narrow size distribution*

**Oxana Vyshivannaya** Moscow State University, Russia

## **Nano-System**

PS-1 *Conductive Polymer Chain Wiring to a Functional Molecule via Chemical Soldering*

**Yuji Okawa** NIMS, JAPAN

PS-2 *Giant improvement of the performance of ZnO nanowire photodetectors by Au nanoparticles*

**Kewei Liu** NIMS, JAPAN

PS-3 *Synthesis and Characterization of Single Layer Graphene on Single Crystal Metal Surfaces*

**Jianhua Gao** NIMS, JAPAN

PS-4 *Fractal Atomic Switch Arrays: Functional Nanotechnology*

**Adam Z. Stieg** UCLA, USA

PS-5 *Switching Kinetics of a Cu-Ta<sub>2</sub>O<sub>5</sub>-based Gapless-type Atomic Switch*

**Tohru Tsuruoka** NIMS, JAPAN

PS-6 *Atomic switching behaviors based on ionic conductive metal oxides*

- Kazuya Terabe** NIMS, JAPAN
- PS-7 *Half-Metallic Antiferromagnet BaCrFeAs<sub>2</sub>*
- Shu-Jun Hu** NIMS, JAPAN
- PS-8 *Nonlocal Entangled Electrons Manipulated by Josephson Current*
- Zhi Wang** NIMS, JAPAN
- PS-9 *Study on the Optimal Condition for Strong THz Radiation from High-T<sub>c</sub> Superconductor BSCCO*
- Feng Liu** NIMS, JAPAN
- PS-10 *Synthesis and Physical Properties in Single Crystalline Iron Based Superconductor 122-systems*
- Hisato Yamaguchi** University of Tsukuba, JAPAN
- PS-11 *Radiation mode characteristics in single crystalline Bi2212 rectangular mesa structures*
- Takanari Kashiwagi** University of Tsukuba, JAPAN
- PS-12 *THz emission from a triangular mesa structure of Bi-2212 IJJs*
- Kaveh Delfanazari** University of Tsukuba, JAPAN
- PS-13 *THz Imaging System by Using the Intrinsic Josephson Junction Emitter*
- Manabu Tsujimoto** University of Tsukuba, JAPAN
- PS-14 *Observation of enhanced spin contrast by spin-polarized scanning tunneling microscopy/spectroscopy of antiferromagnetic Mn films on Fe(100)*
- Puneet Mishra** NIMS, JAPAN
- PS-15 *Irreversible and Reversible Structural Deformation and Electromechanical Behavior of Carbon Nanohorns Probed by Conductive AFM*
- Jianxun Xu** NIMS, JAPAN
- PS-16 *Development of nanoprobe sensor for single biomolecule detection with high spatial resolution*
- Yoshitaka Shingaya** NIMS, JAPAN
- PS-17 *Adsorption of oligothiophenes on Cu(111): Formation of 1D molecular chains and films*
- Toshiyuki Kakudate** NIMS, JAPAN
- PS-18 *Application of tuning fork probe for multiple-scanning-probe measurement in various environments*
- Osamu Kubo** NIMS, JAPAN
- PS-19 *Biosensing Chips for immunointeractions at a Liquid-Liquid Interface*
- Makoto Sawamura** NIMS, JAPAN
- PS-20 *Bioelectrical measurements by nanoscale probes*
- Hiroyuki Tomimoto** NIMS, JAPAN

- PS-21      *Synthesis and Characterization of Boron Nitride Nanosheets Coatings*  
**Amir Pakdel**    University of Tsukuba, JAPAN
- PS-22      *Transport properties of Andreev polarons in junction with superlattice structure*  
**Ryotaro Inoue**    Tokyo University of Science, JAPAN
- PS-23      *Self-assembled InAs Quantum Dot coupled to Superconducting Quantum interference device*  
**Sunmi Kim**    NIMS, JAPAN
- PS-24      *SQUID with Nb-Ru-Sr<sub>2</sub>RuO<sub>4</sub> junctions*  
**Ryosuke Ishiguro**    Tokyo University of Science, JAPAN
- PS-25      *Development of graphene-based superconducting quantum interference device*  
**Kohei Tsumura**    NIMS, JAPAN
- PS-26      *Anisotropic transport in epitaxial graphene on 4H-SiC(0001)*  
**Hiromi Kuramochi**    NIMS, JAPAN
- PS-27      *Device Configuration for High Mobility in Solution-processed Organic Single Crystals Field-effect Transistors*  
**Yun Li**    NIMS, JAPAN
- PS-28      *Solution-Processable Organic Single Crystals with Bandlike Transport in Field-Effect Transistors*  
**Chuan Liu**    NIMS, JAPAN
- PS-29      *Effect Of Ultrathin Oxide Interlayer On Organic Thin Film Semiconductor Transistor Device Performance.*  
**Peter Darmawan**    NIMS, JAPAN
- PS-30      *Surface selective growth of organic single crystals by solvent vapor annealing*  
**Akichika Kumatani**    NIMS, JAPAN
- PS-31      *Complementary-like logic inverts with semiconducting graphene channels*  
**Songlin Li**    NIMS, JAPAN
- PS-32      *Effect of ambient air exposure on metal/organic contact in organic semiconductor devices*  
**Takeo Minari**    NIMS, JAPAN
- PS-33      *Formation of Graphene on Insulator by Liquid Phase Epitaxy*  
**Hidefumi Hiura**    NEC, JAPAN
- PS-34      *Improving Graphene Quality Formed by Gallium Flux Liquid Phase Epitaxy*  
**Michael V. Lee**    NIMS, JAPAN
- PS-35      *Tunnel effect through gate-controlled p-i-n junction in semiconducting bilayer graphene*  
**Hisao Miyazaki**    NIMS, JAPAN
- PS-36      *Hole Doping Leads to Magnetism in Nanographene*

**Sudipta Dutta** NIMS, JAPAN

PS-37 *Nanomechanical Detection of Antibiotic-Mucopeptide Binding and Superbug Drug Resistance on Cantilever Arrays*

**Manuel Vögtli** University College London, UK

PS-38 *Nanoelectronics: Single strand DNA (ssDNA)- SET as a nano switch*

**Vishal Sharma** University of Jammu, INDIA

PS-39 *Metastable Phase Design for Nano-Functional or Structural Materials*

**Choe Byung Hak** Kangnung-Wonju National University, KOREA

## **Nano-Green**

PG-1 *New hybrid materials containing cobalt particles and nitrogen-doped nanostructured carbon obtained by catalytic chemical vapour deposition route*

**Aleksandra Pacula** Polish Academy of Sciences, POLAND

PG-2 *Synthesis of metal nanostructures by electrochemical codeposition and dealloying*

**Satoshi Tominaka** NIMS, JAPAN

PG-3 *Effect of 4-tert-Butylpyridine on Quasi Fermi Level of Dye-Sensitized TiO<sub>2</sub> Films*

**Shufang Zhang** NIMS, JAPAN

PG-4 *Efficient Light Scattering of Rutile TiO<sub>2</sub> Nanorods for Dye-sensitized Solar Cell Application*

**Masatoshi Yanagida** NIMS, JAPAN

PG-5 *Effects of Al-introduction into LiCoO<sub>2</sub> on the electrode properties in solid-state lithium batteries*

**Xiaoxiong Xu** NIMS, JAPAN

PG-6 *Electro- and Photoelectrochemical Behaviors for Cesium Tungstate Nanosheet*

**Kosho Akatsuka** NIMS, JAPAN

PG-7 *Fabrication and ionic conducting properties of superlattices based on ceria and zirconia.*

**Daniele Pergolesi** NIMS, JAPAN

PG-8 *Tailored cathode materials for intermediate temperature SOFCs based on high temperature proton conductor electrolytes*

**Emiliana Fabbri** NIMS, JAPAN

PG-9 *A novel ionic diffusion strategy to fabricate high-performance anode-supported solid oxide fuel cells (SOFCs) with proton-conducting Y-doped BaZrO<sub>3</sub> films*

**Lei Bi** NIMS, JAPAN

PG-10 *Electrical Property of the Thin-film Co-doped Ceria*

**Shobit Omar** NIMS, JAPAN

- PG-11 *Novel PLGA-In situ Ceria-Hydroxyapatite Nanocomposite Scaffolds for Bone Tissue Engineering Applications*  
**Rohit Khanna** NIMS, JAPAN
- PG-12 *Design of bio-organic/inorganic scaffolds with surface functionalization*  
**Tamaki Naganuma** NIMS, JAPAN
- PG-13 *Assessment of cytotoxicity of functional nano-materials aimed to cancer treatment*  
**Claudia Carmignano** NIMS, JAPAN
- PG-14 *Fine Tuning The Architecture Of 3D PLLA Scaffolds Made By Directional Thermally Induced Phase Separation (TIPS) Method*  
**Corrado Mandoli** NIMS, JAPAN
- PG-15 *Visible Light Photoactivity from Electronic Coupling Assembly of TiO<sub>2</sub> Nanocrystals*  
**Hua Tong** NIMS, JAPAN
- PG-16 *Facile Synthesis of Rhombic Dodecahedral AgX/Ag<sub>3</sub>PO<sub>4</sub> (X=Cl, Br, I) Hetero-crystals with Enhanced Photocatalytic Properties and Stabilities*  
**Yingpu Bi** NIMS, JAPAN
- PG-17 *A first principle investigation of ZrO<sub>2</sub>-CeO<sub>2</sub> heterojunction properties*  
**Marco Fronzi** NIMS, JAPAN
- PG-18 *Zinc Ions in Cell Culture Media and Serum form Insoluble Zinc Nanoparticles*  
**Martin B. Duriska** Monash University, Australia
- PG-19 **Jennifer Rupp** NIMS, JAPAN

#### **Nano-Bio**

- PB-1 *"Smart" immunoconjugates for purification and enrichment in a microfluidic immunoassay*  
**John M. Hoffman** University of Washington, USA, NIMS, JAPAN
- PB-2 *Stepwise tissue development-mimicking matrices for the regulation of stem cell differentiation.*  
**Takashi Hoshiba** NIMS, JAPAN
- PB-3 *Integration of Light-induced pH-jump Reaction Into Smart Hydrogels For Their Spatial Shrinking Control*  
**Prapatsorn Techawanitchai** University of Tsukuba, JAPAN
- PB-4 *Immortalized cardiac stem cell lines: an invaluable tool to challenge scaffolds for cardiac tissue engineering*  
**Giancarlo Forte** NIMS, JAPAN
- PB-5 *Effects of branch number and chain Length of star-shape poly( $\epsilon$ -caprolactone) on elastic properties of the cross-linked films*

**Swapan Kumar Saha** NIMS, JAPAN

PB-6 *Corrosion Behavior of Hydroxyapatite-coated AZ31 Magnesium Alloy in Simulated Body Fluids*

**Sachiko Hiromoto** NIMS, JAPAN

PB-7 *Design of photo-crosslinkable and stimuli-responsive nanofiber mats for cell manipulation*

**Young-Jin Kim** NIMS, JAPAN

PB-8 *Manipulation of Stem Cell Function by Geometric Micropatterns*

**Wei Song** NIMS, JAPAN

PB-9 *Porous scaffolds with open surface pore structure for tissue engineering*

**Hongxu Lu** NIMS, JAPAN

PB-10 *Monitoring the Titanium Dioxide induced Inflammation by Modified Sensing Cells using NF- $\kappa$ B activation pathway*

**Peng Chen** NIMS, JAPAN

PB-11 *Development of a novel oligonucleotide carrier possessing reactive oxygen species scavenging ability*

**Yutaka Ikeda** University of Tsukuba, JAPAN

PB-12 *Scavenging in reactive oxygen species improves gene expression in polyplex supported gene delivery*

**Kazuko Toh** University of Tsukuba, JAPAN

PB-13 *Combination Nanotherapy –Drug Delivery by Antioxidative Nanocarrier*

**Pennapa Chonpathompikunlert** University of Tsukuba, JAPAN

#### **MANA Independent Scientist**

PIS-1 *Quantum Transport in Graphene Nanostructures*

**Satoshi Moriyama** NIMS, JAPAN

PIS-2 *Electronic and magnetic properties of graphene nanoribbons with edge modification*

**Katsunori Wakabayashi** NIMS, JAPAN

PIS-3 *A Novel Shortened Electrospun Nanofiber with "Concentrated" Polymer Brush*

**Chiaki Yoshikawa** NIMS, JAPAN

PIS-4 *Inelastic photoemission spectroscopy for surface vibrational analysis*

**Ryuichi Arafune** NIMS, JAPAN

PIS-5 *First-principles calculation study on redox reactivity of diamond(111)/water interface*

**Yoshitaka Tateyama** NIMS, JAPAN

PIS-6 *Strategical Design of Functional Mesoporous Materials toward Practical Applications*

**Yusuke Yamauchi** NIMS, JAPAN

PIS-7 *Spectroscopic study on NaOsO<sub>3</sub>*

**Tsuda Shunsuke** NIMS, JAPAN

**ICYS Researcher**

PIR-1 *Recent Progresses on One-Dimensional CdS Nanostructures*

**Zhai Tianyou** NIMS, JAPAN

PIR-2 *Phosphorus-Doped Polymeric Carbon Nitride Solids*

**Yuanjian Zhang** NIMS, JAPAN

PIR-3 *Smart Magnetic Materials with non-Volatile Memory Effect*

**Fatin Hajjaj** NIMS, JAPAN

PIR-4 *Metal-Metal Interaction Induced Drastic Color Change by Simply Mixing of Pt- and Rh-Complexes*

**Hisanori Ueki** NIMS, JAPAN

PIR-5 *Single-Electron Tunneling via Molecular Dots Embedded in a Metal-Insulator-Semiconductor Structure*

**Ryoma Hayakawa** NIMS, JAPAN

PIR-6 *Physical Synthesis of Rationally Designed Plasmonic Nanoparticles*

**Jung-Sub Wi** NIMS, JAPAN

PIR-7 *Low temperature synthesis of a layered oxyfluoride  $\text{Sr}_3\text{Fe}_2\text{O}_6\text{F}$*

**Yoshihiro Tsujimoto** NIMS, JAPAN

PIR-8 *Synthesis and characterization of  $\text{C}_{60}$  microcrystals at liquid-liquid interface: Effects of solvents and antisolvents*

**Lok Kumar Shrestha** NIMS, JAPAN

PIR-9 *Recent developments in linear-scaling DFT convergence methods using Conquest: Applications to biomolecules in aqueous solution*

**Antonio S. Torralba** NIMS, JAPAN

PIR-10 *Production of Extended Single-Layer Graphene*

**Mingsheng Xu** NIMS, JAPAN

PIR-11 *Photoelectron diffraction study on polar ZnO surface*

**Jesse Williams** NIMS, JAPAN

PIR-12 *An Ubiquitous Element Strategy to Reduce the Use of Precious Metals in Thermal Barrier Coatings*

**Rudder Wu** NIMS, JAPAN

PIR-13 *Ultrabroad Near Infrared Photoluminescence from Bismuth Embedded Zeolites*

**Hong-Tao Sun** NIMS, JAPAN

PIR-14  *$\text{LaB}_6$  Single Nanowire Field Emitter: The Ideal Cold Electron Point Source*

**Han Zhang** NIMS, JAPAN

PIR-15 *Unipolar Assembly of ZnO Rods: Polarity Driven Collective Luminescence*



**Ujjal K. Gautam** NIMS, JAPAN

PIR-16 *Quantum dot sensitized solar cells*

**Vaishali R. Shinde** NIMS, JAPAN

PIR-17 *Demonstration of AlN/Diamond Heterostructure Field Effect Transistors*

**Masataka Imura** NIMS, JAPAN

PIR-18 **Zoe Schnepf** NIMS, JAPAN