

The 2nd MANA Reunion Workshop

March 8th - 9th, 2018

Venue: Auditorium, WPI-MANA Building, Namiki, NIMS, Tsukuba, Japan

March 8th, 2018

Chair: Yoshio Bando

9:30- 9:35 *Welcome Addresses*
Daisuke Fujita, Executive Vice President, NIMS

9:35- 10:00 *Present Status of MANA*
Takayoshi Sasaki, Director, MANA, NIMS

10:00-10:40 Special Talk 1; Chair; Tomonobu Nakayama

10:00-10:40 *From TEM to BN Nanotubes: 43 Years of Research at NIMS*
Yoshio Bando, MANA Executive Advisor

10:40-11:00 *Coffee Break*

11:00-12:00 Session 1 Chair; Takashi Nakanishi, Tadaaki Nagao

11:00-11:20 *Crystallization of Metal-Organic Frameworks*
Hamish Hei-Man Yeung, University of Oxford, UK

11:20-11:40 *Enzyme-Like Complexity in the Pores of Metal-Organic Frameworks*
Alejandro M. Fracaroli, Universidad Nacional de Córdoba, Argentina

11:40-12:00 *Nano-Engineering of Thermoelectric Materials to Boost Their Energy Harvesting Efficiency*
Amir Pakdel, Trinity College Dublin, Ireland

12:00-13:30 *Lunch*

13:30-14:30 Session 2 Chair; Yutaka Wakayama, Kazuya Terabe

13:30-13:50 *Chemical Self-Propelled Autonomous Micro/Nano Machines*
Martin Pumera, Nanyang Technological University, Singapore

13:50-14:10 *Molecular Nanoarchitectonics for Advanced Graphene Materials and the Next Generation of Photovoltaics Solar Cells*
Hicham Hamoudi, Hamad Bin Khalifa University & QEERI, Qatar

14:10-14:30 *Nano-interface Polarization Engineering for III-V Nitride p-channel Field Effect Transistors*
Liweng Sang, MANA, NIMS

14:30-14:50 *In-situ Experiments on 1D Nanoscale Objects inside the TEM*
Ovidiu Cretu, MANA, NIMS, Japan

14:50-15:20 *Coffee Break*

15:20-16:40	Session 3	Chair; Takayoshi Sasaki, Takao Mori
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15:20-15:40 *Rational Design and Assembly of 2D Materials for Environmental and Energy Applications*

Pengzhan Sun, The University of Manchester, UK

15:40-16:00 *Structural and TE Properties of Zr Doped β -Rhombohedral Boron and Related Compounds*

Oksana Solohub, Technical University of Vienna, Austria

16:00-16:20 *Semiconducting Photoelectrodes and Integrated Devices for Solar-Driven Water Splitting*

Lianzhou Wang, The University of Queensland, Australia

16:20-16:40 *Polymer-Wrapped Carbon Nanotube Network for Facile Detection of Toxic Gases*

Shinsuke Ishihara, MANA, NIMS

17:30-19:30 *Workshop Banquet* (Cafe at NIMS Namiki Site)

March 9th, 2018

9:30-10:20	Special Talk 2;	Chair; Masakazu Aono
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9:30-10:10 *Contribution of Nanotechnology and Materials on the Sustainable Development of Society*

Teruo Kishi, President of ISMA, Japan

10:10-10:40 *Photo & Coffee Break*

10:40-	Session 4	Chair; Katsuhiko Ariga, Naoki Fukata
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10:40-11:00 *Design of Mesoporous Fullerenes C60 and C70 with Different Structures and Morphologies for Energy Applications*

Ajayan Vinu, The University of Newcastle, Australia

11:00-11:20 *Relating Structure-properties of 1D and 2D Materials by In-situ Transmission Electron Microscopy*

Daiming Tang, MANA NIMS, Japan

11:20-11:40 *Probing Interface and Designing Differentiator of a Single Heterojunction Quantum Dots*

Somobrata Achrya, Center for Advanced Materials, IACS, India

11:40-12:00 *Fullerene Nanomaterials Design: From Zero to Higher Dimensions*

Lok Kumar Shrestha, MANA, NIMS, Japan

12:00-13:30 *Lunch Break*

13:30-15:10	Session 5	Chair; Kazuhito Tsukagoshi, Takashi Uchihashi
13:30-13:50	<i>All-inorganic Perovskite Quantum Dots for Flexible High-definition QLED Displays</i> <u>Haibo Zeng</u> , Nanjing University of Science and Technology, China	
13:50-14:10	<i>Ultrafast Growth of Single-or Multiple-Layered Graphene on a Metal Tip in a Second</i> <u>Jianxun Xu</u> , National Center for Nanoscience and Technology of China, China	
14:10-14:30	<i>In-situ GIWAXS Observation of Growth Dynamics of Intermixing Seeded Growth Perovskite Thin Films</i> <u>Shao-Sian Li</u> , Taipei Medical University, Taiwan	
14:30-14:50	<i>Metal-Organic Framework Derived Nanoporous Carbons for Supercapacitor Application</i> <u>Rahul R.Salunkhe</u> , IIT Jammu, India	
14:50-15:10	<i>Nanomechanical Sensors (MSS, AMA) toward Olfactory IoT Sensing Systems</i> <u>Genki Yoshikawa</u> , MANA, NIMS	
15:10-15:30	<i>Closing and Break</i>	
15:30-17:30	<i>Lab. Tour</i>	Guide; Andreas Doenni

18:00-20:00 ***Invitation Dinner***