

**2017 TIMS-CENIDE-NTHU Joint Symposium on Nanoscience and Nanotechnology**  
(Workshops of CiRfSE and Pre-Strategic Initiatives)

**March 10th, 2017 (Friday)** (Conference Room B0110)

9:00~9:30 Registration

**2017 TIMS-CENIDE Joint Symposium on Nanoscience and Nanotechnology**

Opening Session

9:30~9:35 **Tatsuya Nabeshima** (TIMS, CiRfSE, University of Tsukuba)

Opening Remarks

9:35~9:55 **Tobias Teckentrup** (CENIDE, University of Duisburg-Essen)

Nano Research at the University of Duisburg-Essen: An Overview

Scientific Session

Chairman: **Jun-ichi Fujita** (TIMS)

9:55~10:35 **Hermann Nienhaus** (CENIDE, University of Duisburg-Essen)

**IL-1** Non-Adiabatic Effects in Gas-Surface Interactions

10:35~10:55 **Junji Nakamura** (TIMS, CiRfSE, University of Tsukuba)

**IL-2** Active Sites of Nitrogen-Doped Carbon Materials for Oxygen Reduction Reaction

10:55~11:05 Coffee Break (Conference Room B0112)

Chairman: **Junji Nakamura** (TIMS, CiRfSE)

11:05~11:25 **Masashi Kijima** (TIMS, University of Tsukuba)

**IL-3** Modifications of Carbazole-Based Conjugated Polymers for Each Application

11:25~11:45 **Masaki Yamamura** (TIMS, University of Tsukuba)

**IL-4** Supramolecule and Photophysical Properties of Curved Molecules Containing Phosphorus Atoms

11:45~12:05 **Akira Sekiguchi** (TIMS, University of Tsukuba)

**IL-5** Silyl Radicals and Polysilynes: Application to the Energy Storage System

12:05~13:30 Lunch

Chairman: **Tatsuo Arai** (*TIMS*)

13:30~13:50 **Nicolas Woehrl** (*CENIDE, University of Duisburg-Essen*)

**IL-6** Low-Dimensional Carbon Nanomaterials by Plasma Assisted Chemical Vapor  
Deposition: From Bulk to 0D and Back

13:50~14:10 **Yoshikazu Ito** (*University of Tsukuba*)

**IL-7** 3D Graphene Provide New Ways for Creating Graphene Applications

Chairman: **Takaki Kanbara** (*TIMS, CiRfSE*)

14:10~14:30 **Ina Haxhiaj** (*CENIDE, University of Duisburg-Essen*)

**IL-8** Process-Stable and Highly Pure Active Nanomaterials for Energy Research  
Produced by Continuous Laser Technique

14:30~14:50 **Yoshinobu Nishimura** (*TIMS, University of Tsukuba*)

**IL-9** Hydrogen-Bonding Interaction of Emissive Aromatic-Urea Compounds

14:50~15:10 **Klaus Friedel Ortega** (*CENIDE, University of Duisburg-Essen*)

**IL-10** Top-Down Synthesis of Oxide Supported Metal Catalysts: New Materials and  
Insights from Co-Precipitated Precursor Decomposition

15:10~15:25 Coffee Break (*Conference Room B0112*)

### Workshop of Pre-Strategic Initiatives: Ensemble of Light with Matter and Life for Discovery and Insights of Novel Phenomena

Chairman: **Tatsuya Nabeshima** (*TIMS, CiRfSE*)

15:25~15:45 **Yohei Yamamoto** (*TIMS, CiRfSE, University of Tsukuba*)

**IL-11** Optical and Laser Microcavities by Self-Assembly of Conjugated Molecules  
and Polymers

15:45~16:05 **Hideaki Kano** (*TIMS, CiRfSE, University of Tsukuba*)

**IL-12** Label-Free, Multi-Color Imaging of Live Cells and Tissues Using a White-Light Laser Source

Chairman: **Yohei Yamamoto** (*TIMS, CiRfSE*)

16:05~16:45 **Hidefumi Hiura** (*IoT Device Research Laboratories, NEC Corporation*)

**IL-13** Chemistry of Vibrational Ultrastrong Coupling: Towards Realizing a Universal Catalyst

16:45~17:25 **Tadaaki Nagao** (*MANA, NIMS*)

**IL-14** Applications of Oxides and Nitrides Nanostructures for Photothermal/Photoelectric Energy Conversion

Chairman: **Yasuhiro Hatsugai** (*TIMS, University of Tsukuba*)

17:25~17:55 **Ta-Jen Yen** (*National Tsing Hua University*)

**IL-15** A Three-Dimensional Negative Index Medium and a Miniature Surface Plasmon Polariton Amplitude Modulator

18:30~ Dinner

**March 11th, 2017 (Saturday)**      (*Conference Room B0110*)

Chairman: **Eiji Nishibori** (*TIMS, CiRfSE*)

9:30~9:50      **Takeaki Sakurai** (*TIMS, University of Tsukuba*)

**IL-16**      Progress of Defect Study in Cu(In,Ga)Se<sub>2</sub> Based Solar Cells

9:50~10:10      **Yasuhiro Hatsugai** (*TIMS, University of Tsukuba*)

**IL-17**      From Graphene to Topological Materials

10:10~10:30      **Hidetaka Kasai** (*TIMS, CiRfSE, University of Tsukuba*)

**IL-18**      Advanced Charge Density Studies of TiS<sub>2</sub> and LaB<sub>6</sub> Using High-Resolution  
X-Ray Diffraction Data

10:30~10:45      Coffee Break (*Conference Room B0112*)

### **Workshop of CiRfSE, Research Core for Developing Energy and Environment-friendly Materials**

Chairman: **Yutaka Moritomo** (*TIMS, CiRfSE*)

10:45~11:25      **Dam Hieu Chi** (*School of Knowledge Science, JAIST*)

**IL-19**      Knowledge Discovery from Materials Science Data

11:25~12:05      **Hiroshi Kondoh** (*Department of Chemistry, Keio University*)

**IL-20**      Operando Observations of Catalytic Reactions on Platinum Group Metal  
Surfaces under Near Ambient Pressure XPS

12:05~12:10      **Closing Remarks**

**Kazuyuki Kanaya** (*CiRfSE, University of Tsukuba*)