

2017 TIMS-CENIDE-NTHU Joint Symposium on Nanoscience and Nanotechnology (Workshops of CiRfSE and Prestrategic Initiative) 報告書

日 時 : 2017 年 3 月 10 日 (金) ~ 11 日 (土)

場 所 : 筑波大学総合研究棟 B0110 公開講義室、0112 室

懇親会 : 2017 年 3 月 10 日 (金) 18 : 30 ~ 20 : 30 大学会館レストラン「筑波デミ」

総参加者数 (講演者含む) 72 名

(内訳)

招待講演者 (学外) 10 名

教員・一般研究者 (学内招待講演者含む) 33 名

学生 29 名

懇親会参加者 27 名

(内訳)

招待講演者 8 名

教職員 19 名

プログラム

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

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

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)Se₂ 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 TiS₂ and LaB₆ Using High-Resolution
X-Ray Diffraction Data

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*)

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| Tatsuya Nabeshima | Tobias Teckentrup | Hermann Nienhaus | Junji Nakamura |
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| Masashi Kijima | Masaki Yamamura | Akira Sekiguchi | Nicolas Woehrl |
|  |  |  |  |
| Yoshikazu Ito | Ina Haxhiaj | Yoshinobu Nishimura | Klaus Friedel Ortega |

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| Yohei Yamamoto | Hideaki Kano | Hidefumi Hiura | Tadaaki Nagao |
|  |  |  |  |
| Ta-Jen Yen | Takeaki Sakurai | Yasuhiro Hatsugai | Hidetaka Kasai |
|  |  |  | |
| Dam Hieu Chi | Hiroshi Kondoh | Kazuyuki Kanaya | |

