

# JT-AND 2025 Program and Contents

*Wednesday, January 8<sup>th</sup>*

**Welcome Reception (18:00-20:00)**

*Thursday, January 9<sup>th</sup>*

**Registration (9:00-9:30) Registration Desk**

**Opening Remarks (9:30-9:35)**

Akira Baba, *Niigata University*

**Welcome Message (9:35-9:45)**

Dean of Faculty of Science, *Chiang Mai University*

**SESSION 1 (9:45-10:45)**

Chairperson: Akira Baba

**IA-1 9:45-10:20**

**(INVITED TALK)**

**Aragonite Calcium Carbonate Microparticles Derived from Asian Green Mussel Shells as Potential Bio-insecticide with Physical Mechanism**

Carlito P. Basay, Jr., Jira Patthanavarit (Chulalongkorn University), Nittaya Kaewpraek (Thailand Institute of Science and Technology Research), and Sanong Ekgasit\* (Chulalongkorn University)

**OA-1 10:20-10:45**

**Equivalent circuit parameter analysis to quantify the performance of water droplet-based electricity generators**

Daisuke Tajima, Yusuke Aoki\* (Mie University)

*Break (10:45-11:00)*

**SESSION 2 (11:00-12:00)**

Chairperson: Saengrawee Sriwichai

**IA-2 11:00-11:35**

**(INVITED TALK)**

**One-step Synthesis of Functionalized Metal Oxide Nanoparticles through Flame Spray Pyrolysis for Gas-sensing Applications**

Chaikarn Liewhiran\* (Chiang Mai University)

**OA-2 11:35-12:00**

**Development of Electrochemical Biosensors based on**

**Polypyrrole/Nanomaterial Composites**

Rapiphun Janmanee, Anchana Preechaworapun, Kulwadee Pinwattana, Padarat Ninjaranai (Pibulsongkram Rajabhat University), Saengrawee Sriwichai (Chiang Mai University)

*Lunch Break (12:00-13:40)*

**SESSION 3 (13:40-15:40)**

Chairperson: Kontad Ounnunkad

**IA-3 13:40-14:15 (INVITED TALK)**

**Sand-dropping test for photovoltaic modules using cover glass coated with hydrophilic or hydrophobic coating**

Preechaburana Pakorn, Riku Kohida, Toshiki Nishi (Niigata University), Akihito Hirai (Central Automotive Products), Atsushi Masuda (Niigata University)

**OA-3 14:15-14:40 Detection of atmospheric aerosol layer using Mie LiDAR system**

Chammari Pothipor, Supachai Awiphan, Titaporn Supasri, Thansita Thomrungpiyathan, Patcharadanai Sombatsatien, Wittaya Kumtan, Tawanpon Kaima (National Astronomical Research Institute of Thailand), Sukrit Thongrom, Chalongrat Daengngam (National Astronomical Research Institute of Thailand/ Prince of Songkla University, Thailand)

**OA-4 14:40-15:05 Development of Photoelectric Conversion Devices Enhanced by Surface Plasmon Excitation**

Akira Baba, Joseph Baki Kaore, Socheata Loch, Sachiko Joani, Kazunari Shinbo, Keizo Kato (Niigata University)  
*Chulalongkorn University*

**IA-4 15:05-15:40 (INVITED TALK)**

**Driving Sustainability Through Innovative Waste Utilization**

Chutiparn Lertvachirapaiboon\* (National Nanotechnology Center) Lanjakorn Amornkitbamrung, Kanet Wongravee, Sanong Ekgasit (Chulalongkorn University)

*Break (15:40-16:00)*

**Laboratory Tour (16:00-)**

Faculty of Science, Chiang Mai University

*Banquet (18:00-)*

*Friday, January 10<sup>th</sup>*

SESSION 4 (9:30-10:55)

Chairperson: Yusuke Aoki

- IB-1 9:30-10:05 (INVITED TALK)**  
**Impact of orientation control and nanofiller additives on carrier transport in conjugated polymer films**  
Takaaki Manaka (Institute of Science Tokyo)
- OB-1 10:05-10:30 Enhancing Organic Thin-Film Solar Cell Efficiency Through CdTe Quantum Dot Integration**  
Apichat Phengdaam, Opas Bunkoed (Prince of Songkla University), Rathawat Daengngern (King Mongkut's Institute of Technology Ladkrabang), Keizo Kato, Sachiko Jonai, Kazunari Shinbo, Akira Baba (Niigata University)
- OB-2 10:30-10:55 Proton beam writing for fabricating devices with microstructures to generate photonic nanojets**  
Nitipon Puttaraksa, Taichi Sano, Keito Tobe, Kunpisit Kosumsupamala, Hironori Seki (Shibaura Institute of Technology), Akihiro Tsuji, Shota Okubo, Rikuto Hotta, Tatsunosuke Matsui (Mie University, Japan), Hiroyuki Nishikawa (Shibaura Institute of Technology)

*Break (10:55-11:10)*

SESSION 6 (11:10-12:00)

Chairperson: Chutiparn Lertvachirapaiboon

- OB-3 11:10-11:35 Studies on Hydrogen-Bonded Liquid Crystal Mixtures with Fluorinated Benzoic Acids**  
Rumiko Yamaguchi, Koki Sawataishi, Dan Jian (Akita University)
- OB-4 11:35-12:00 Innovative Precursors of Electron Transporting Layers for Improving Performance Carbon-based Perovskite Solar Cells**  
Thanawat Kanlayapattamapong, Watcharapong Pudkon (Chiang Mai University)

**Concluding Remarks (12:00-12:05)**

Kontad Ounnunkad, *Chiang Mai University*

*Lunch Break (12:05-13:40)*

**Technical Tour (13:40-)**

National Astronomical Research Institute of Thailand (NARIT)

*Saturday, January 11<sup>th</sup>*

**Excursion (9:00-)**