

The 2nd GP–Chem International Symposium Program

Date: February 21–22, 2025

Venue: Aoba Science Hall (H-04)

Graduate School of Science

February 21 (Fri.)

09:20–9:30 Opening Yujiro Hayashi (GP-Chem Program Leader,
Graduate School of Science, Tohoku University)

Chair: Yuji Matsumoto (Graduate School of Engineering, Tohoku)

09:30–10:30 Hiang Kwee Lee (Nanyang Technological University, Singapore)

Squeezing Light and Manipulating Molecules to Enhance Nanocatalysis for Sustainable Energy and Environmental Applications

10:30–11:00 Hideki Kato (IMRAM,* Tohoku)

Modification of Properties of Photocatalysts for Water Splitting

11:00–11:30 Masaya Mitsuishi (Graduate School of Engineering, Tohoku)

Sensitivity and Selectivity: Polymer Nanoassembly Interfaces

11:30–13:00 **Lunch**

Chair: Hitoshi Kasai (IMRAM,* Tohoku)

13:00–14:00 Tracey Clarke (University College London, UK)

Excited States in Organic Photovoltaic Materials

14:00–14:30 Shingo Maruyama (Graduate School of Engineering, Tohoku)

Monitoring the Formation of Tin Halide Perovskite from Vacuum-Deposited Bilayers by In Situ IR Spectroscopy

14:30–15:00 Tomoyuki Akutagawa (IMRAM,* Tohoku)

Chemical Design of Ferroelectric Organic Semiconductor

GP-Chem Student Special Session: Experiences and Achievements from Overseas Training

Chair: Akari Yoshida (Graduate School of Environmental Studies, Tohoku)

15:00–15:15 Peng Zengkang (Graduate School of science, Tohoku)

Academic and Personal Growth at UCL: A Journey in Research and Life

Chair: Nao Takahashi (Graduate School of Agricultural Science, Tohoku)

15:15–15:30 Liu Hao (Graduate School of Science, Tohoku)

My Journey Through the Nanyang

15:30–15:50 **Group Photo & Break**

Chair: Tomoteru Fukumura (Graduate School of Science)

15:50–16:20 Yusuke Ootani (Institute for Materials Research, Tohoku)

Molecular Dynamics Simulation Study on Microscale Wear Mechanism of Concentrated Polymer Brushes

16:20–16:50 Hiroyuki Fukuyama (IMRAM,* Tohoku)

Solution Growth Method of AlN Single Crystal

16:50–17:50 Scott Woodley (University College London, UK)

Structure Prediction - Searching Energy Landscapes of Clusters, Surfaces and Bulk Phases

February 22 (Sat.)

Chair: Takeaki Iwamoto (Graduate School of Science, Tohoku)

09:00–10:00 Rei Kinjo (Nanyang Technological University, Singapore)

Chemistry of Electron-rich Group 13 Compounds

10:00–10:30 Shintaro Ishida (Graduate School of Science, Tohoku)

An Isolable Phosphinyl Radical: Properties and Diverse Reactions

10:30–10:50 Jun Kikuchi (Graduate School of Pharmaceutical Sciences, Tohoku)

Synthesis and Properties of Carbon–Iodine Bond Atropisomers

10:50–11:00 **Break**

Chair: Masaru Enomoto (Graduate School of Agricultural Science, Tohoku)

11:00–12:00 Daniele Castagnolo (University College London, UK)

Biocatalytic and Chemo-Enzymatic Cascades in the Synthesis of Chemicals and Organic Building Blocks

12:00–13:00 **Lunch**

13:00–13:30 Yoshinao Nakagawa (Graduate School of Engineering, Tohoku)

Catalytic Syntheses of Butanols and Butanediols from Biomass

13:30–13:50 Atsushi Umehara (Graduate School of Life Sciences, Tohoku)

DMAPO/Boc₂O-Mediated One-Pot Direct N-Acylation of Less Nucleophilic N-Heterocycles with Carboxylic Acids

13:50–14:00 **Break**

Chair: Naohiko Yoshikai (Graduate School of Pharmaceutical Sciences, Tohoku)

14:00–15:00 Choon Hong Tan (Nanyang Technological University, Singapore)

Chiral Cationic Ion Pair Catalysis Using Guanidiniums

15:00–15:30 Kouki Oka (IMRAM,* Tohoku)

Development of Organic Energy Materials

15:30–16:00 Masanori Shigeno (Graduate School of Pharmaceutical Sciences, Tohoku)

Organic Superbase Catalysis for Carbon-Fluorine Bond Exchange Reactions

16:00–16:20 Open Discussion on the Symposium

16:20–16:30 **Group Photo**

16:30–16:40 Closing Hisako Hashimoto (Graduate School of Science, Tohoku)

18:30–20:30 **Information Exchange Meeting**

*IMRAM: Institute of Multidisciplinary Research for Advanced Materials