

GP-Chem Kickoff Symposium Program

Venue: Science Lecture Hall (H-32)
Graduate School of Science
Tohoku University

September 6 (Wed.)

- 08:50–9:00 Opening Yujiro Hayashi (GP-Chem Program Leader,
Graduate School of Science, Tohoku University)
- Chair: Shen Ye (Graduate School of Science, Tohoku)
- 09:00–10:00 Elsa Yan (Yale University, USA)
*Detecting Interplay of Chirality, Water, and Interfaces for Elucidating
Biological Functions*
- 10:00–10:30 Takakazu Nakabayashi (Graduate School of Pharmaceutical Sciences, Tohoku)
*Measurements of Water in a Living Cell: Application to Evaluate Intracellular
Environments*
- 10:30–11:00 Akihiro Morita (Graduate School of Science, Tohoku)
*Computational Analysis of Sum Frequency Generation Spectroscopy for
Exploring Interfaces*
- 11:00–11:20 Break
- Chair: Shinji Kajimoto (Graduate School of Pharmaceutical Sciences, Tohoku)
- 11:20–11:40 Ken-ichi Inoue (Graduate School of Science, Tohoku)
*In Situ Spectroscopic Observation of Reactions at the Phospholipid/Water
Interface*
- 11:40–12:00 Kohsuke Kawabata (Graduate School of Science, Tohoku)
*Near-infrared Absorbing Organic Semiconductors Based on Quinoidal
Acenedichalcogenophenediones*
- 12:00–13:00 Lunch
- Chair: Tomoyuki Akutagawa (IMRAM,* Tohoku)
- 13:00–13:20 Wataru Kosaka (Institute for Materials Research, Tohoku)
*Creation of Porous Magnet Realizing Concerted Responses between Gas
Adsorption and Magnetic Phase Transition*

13:20–13:50 Shinya Takaishi (Graduate School of Science, Tohoku)
Chromatographic H₂/D₂ Separation at Room Temperature Using Solid-State Dihydrogen Complexes

13:50–14:50 Neil Robertson (University of Edinburgh, UK)
Solar Energy and Photovoltaics: Keeping the Technology Simple

14:50–15:10 Break

Chair: Shingo Maruyama (Graduate School of Engineering, Tohoku)

15:10–16:10 Lixin Xiao (Peking University, China)
Highly Efficient Electron-Transporting Materials for OLEDs

16:10–16:30 Shunsuke Yamamoto (Graduate School of Engineering, Tohoku)
Organic Electron-Ion Mixed Conducting Polymer Materials and Their Device Application

16:30–16:50 Break

Chair: Hitoshi Shiku (Graduate School of Engineering, Tohoku)

16:50–17:20 Shen Ye (Graduate School of Science, Tohoku)
Structures and Stabilities of the Organic Solvents on the Cathode Surface of Li-O₂ Battery Investigated by In Situ Vibrational Spectroscopies and Atomic Force Microscope

17:20–17:40 Saneyuki Ohno (IMRAM,* Tohoku)
Materials and interfaces design for solid-state batteries

Chair: Hisako Hashimoto (Graduate School of Science, Tohoku)

17:40–18:10 Ryota Sakamoto (Graduate School of Science, Tohoku)
New Aspects in Molecule-Based Nanowires and Nanosheets

September 7 (Thu.)

Chair: Keishi Suga (Graduate School of Engineering, Tohoku)

09:00–10:00 Ho-Sup Jung (Seoul National University, Korea)
Multicompartment PLGA Microparticles with Enhanced Size Homogeneity and Encapsulation Efficiency by a Hybrid Approach

10:00–10:30 Mao Fukuyama (IMRAM,* Tohoku)
Bioassays in Microdroplets by Using Spontaneous Emulsification

- Chair: Takaaki Tomai (Frontier Research Institute for Interdisciplinary Sciences, Tohoku University)
- 10:30–10:50 Kanako Watanabe (Graduate School of Engineering, Tohoku)
Material Design with Hollow Particles Containing a Moving Colloid for Optical and Sensing Applications
- 10:50–11:10 Break
- Chair: Masaru Enomoto (Graduate School of Agricultural Science, Tohoku)
- 11:10–12:10 Krishna P. Kaliappan (Indian Institute of Technology Bombay, India)
Serendipity and Logicality in Organic Synthesis
- 12:10–13:10 Lunch
- Chair: Seiichi Nishizawa (Graduate School of Science, Tohoku)
- 13:10–14:10 Kyeong Kyu Kim (Sungkyunkwan University, Korea)
Noncanonical nucleic acids: structure, function and modulation
- Chair: Minoru Ueda (Graduate School of Science, Tohoku)
- 14:10–15:10 Young-Tae Chang (POSTECH, Korea)
Make Invisible Visible for Bioimaging
- 15:10–15:30 Break
- Chair: Hidetoshi Tokuyama (Graduate School of Pharmaceutical Science, Tohoku)
- 15:30–16:30 Martin G. Banwell (Jinan University, China)
Chemical Synthesis – Does it Have a Future in the Era of Sustainability?
- 16:30–17:30 Brian M. Stoltz (California Institute of Technology, USA)
Complex Natural Products as a Driving Force for Discovery in Organic Chemistry
- 17:30 Closing
- 19:00 **Banquet**

*IMRAM: Institute of Multidisciplinary Research for Advanced Materials