



東北大学

# International Symposium: Advanced Materials and Characterizations for Energy Storage Devices

**2025. 12. 08**

**13:15-17:30 Mon.**

**IMRAM East Building 2, 2nd floor, 2201**  
(東2号館, 2階セミナー室, 片平)

## Program

**13:15 – 13:20** Opening remarks

**Director Prof. Toshiyuki HAYASE (FRIS, Tohoku U.)**

**13:20 – 13:30** Introductory talk

**Prof. Hirotomo NISHIHARA (AIMR, Tohoku U.)**

## Invited talks (including Q&A):

**13:30 – 14:00 Dr. Heather AU (Imperial College London)**

*Sustainable Structural Materials for Energy Storage*

**14:00 – 14:30 Dr. Yoshikiyo HATAKEYAMA (Gunma University)**

*Operando Structural Analysis of Electrodes and Catalysts: SAXS/XAFS/Electrochemical Dilatometry*

**14:30 – 15:00 Dr. Lei QIN (Shenzhen University)**

*Is Superoxide Battery Really Super Reactive?*

**15:00 – 15:30** Coffee break

**15:30 – 16:00 Dr. Yoshimitsu ITOH (University of Tokyo)**

*Engineering Interfacial Molecular Interactions for Novel Functional Materials*

**16:00 – 16:30 Ms. Samantha SOUTHERN (Imperial College London)**

*Sustainable Lignin-derived Carbon Fibre Current Collectors for Zero-excess Lithium Metal Batteries*

**16:30 – 17:00 Dr. Hwai En LIN (Taipei Tech)**

*Application of Sustainable Plant-Based Pectin as a Binder in Lithium-Ion Batteries*

**17:00 – 17:30 Dr. Takeharu YOSHII (IMRAM, Tohoku U.)**

*Ultra-High Temperature TPD: A Frontier Tool for Heteroatom Characterization*

Organizer: Frontier Research Institute for Interdisciplinary Sciences (FRIS)

Contact: Dr. Wei YU (FRIS) Email: [yu.wei.a3@tohoku.ac.jp](mailto:yu.wei.a3@tohoku.ac.jp)