

OIST-I²CNER JOINT SYMPOSIUM

“BRIDGING ENERGY RESEARCH FOR A SUSTAINABLE FUTURE”

Okinawa Institute of Science and Technology (OIST), Okinawa
January 21 - 22, 2026

Program < Venue: Seminar Room C210 >

Symposium Day 1) Wednesday, January 21st

Opening Remarks Chair: Keshav M. Dani, Director, Energy Open Center, OIST

Opening Remarks
13:15 - 13:25 **Karin Markides**, President, OIST
Tatsuro Ishibashi, President, Kyushu University **pre-recorded*
Overview of each institutions
13:25 - 13:45 **Keshav M. Dani**, Director, Energy Open Center, OIST
Tatsumi Ishihara, Director, I²CNER, Kyushu University

Session I Chair: Keshav M. Dani, Director, Energy Open Center, OIST

13:45 - 14:05 **Shigenori Fujikawa**, Associate Director, I²CNER, Kyushu University
“Direct CO₂ capture from the air by nanomembranes”
14:05 - 14:30 **Dan Daniel**, Assistant Professor, OIST
“Droplet Physics for a Sustainable Future”
14:30 - 14:50 **Thomas Lippert**, Professor, Paul Scherrer Institute
“Pulsed Laser Deposition (PLD) for Energy Materials”
14:50 - 15:10 **Miho Yamauchi**, Professor, Institute for Materials Chemistry and Engineering, Kyushu University
“Inorganic Nanocatalysts for Efficient Hydrogenation Reactions to Upgrade Chemicals”

Poster Session + Coffee Break

15:10 – 16:10 (Details are provided at the end)

Session II Chair: Toshinori Matsushima, Associate Professor, I²CNER, KU

16:15 - 16:40 **Jinsun Lee**, Assistant Professor, OIST
“Catalyst Design for Advanced Photoelectrochemical Platforms: Challenges and New Directions”
16:40 - 17:00 **John A. Kilner**, Professor, Imperial College London
“Oxygen Gas/Solid exchange on oxide surfaces”
17:00 - 17:20 **Leonard Kwati**, Associate Professor, I²CNER, Kyushu University
“From Powder to Membrane : Sr-Assisted Densification of Proton conducting Oxides for Hydrogen Production”

17:25 - 18:30 Lab Tour & Talk *I2CNER only

17:25-18:00 Lab Tour (Saze, Okada, Pinaki Unit)
18:00-18:30 Talk: General Information about OIST Innovation
by **Gil Granot Mayer**, Executive Vice President for Innovation and Outreach

19:00 Conference Dinner

Symposium Day 2) Thursday, January 22nd

Session III Chair: Dan Daniel, Assistant Professor, OIST

9:00 - 9:20 **Hiroshige Matsumoto, Associate Director, I²CNER, Kyushu University**
"Steam Electrolysis by Use of Proton-Conducting Metal Oxides"

9:20 - 9:45 **Shu Zhang, Assistant Professor, OIST**
"Sign control of spin and charge photocurrents in altermagnetic insulators"

9:45 - 10:05 **Dina Fattakhova-Rohlfing, Professor, Forschungszentrum Jülich GmbH**
"Sodium solid-state batteries: towards low-temperature batteries from materials perspective"

10:05 - 10:25 **Stephen Skinner, Professor, Imperial College London**
"Observation of ammonia conversion and oxynitride formation with in-situ spectroscopic tools"

10:25 – 10:55 Photo Session + Coffee Break

Session IV Chair: Aleksandar Staykov, Associate Professor, I²CNER, KU

10:55 - 11:15 **Petros Sofronis, Professor, University of Illinois at Urbana-Champaign**
"Enduring International Partnerships as Catalysts for Innovation: from Fundamental Science to Engineering Materials Solutions for Hydrogen Technologies"

11:15 - 11:40 **Chikae Tatsumi, Assistant Professor, OIST**
"Why Soil Fungal Communities Matter for Ecosystem Carbon Storage"

11:40 - 12:00 **Mai Tomisaki, Assistant Professor, I²CNER, Kyushu University**
"Membrane-Free Water Electrolysis Using Iodine Redox Species"

12:00 - 12:20 **Toshinori Matsushima, Associate Professor, I²CNER, Kyushu University**
"Multiscale Stabilization Strategies for Durable Perovskite Solar Cells"

12:20 - 13:20 Lunch

13:20 – 13:40 **Jonas Fischer, Academic Manager, OIST**
OIST's Academic Partnerships and Visiting Programs

13:40-13:45 Closing Remarks: Keshav M. Dani, Director, Energy Open Center, OIST

13:45 – 14:45 Open Discussion Time

Poster Session

| Name | Poster title | No. |
|--|---|-----|
| Daria Sherstiukova <i>PhD Student, OIST</i> | Cobalt Complexes with Modified Bipyridine-Based Pincer Ligands for Carbon Dioxide Hydroboration | 1 |
| Julio Manuel Barros Junior <i>Staff Scientist, OIST</i> | Universality in the Small Scales of Turbulent Taylor-Couette Flow | 2 |
| Hiroko Miyahara <i>Associate Professor, OIST</i> | Investigating Solar Activity-Weather Coupling Toward Improved Forecasting of Weather and Weather-Dependent Renewable Energy Output | 3 |
| Luis Katsuya Ono <i>Senior Staff Scientist, OIST</i> | Perovskite Solar Cells: Achievements and Challenges | 4 |
| Muhammad Sohail <i>Staff Scientist, OIST</i> | Control of Chemical Reactions in Non-aqueous Solutions Using Buffering Molecules | 5 |
| | Dynamic Kinetic Asymmetric Transformation of Racemic Diastereomer Mixtures: Diastereo- and Enantioselective Synthesis of Spirooxindoles | 6 |
| Shintaro Kawatsuka <i>Research Intern, OIST</i> | Exploring Fungal Functional Variation in Carbon and Nutrient Cycling Using Large-Scale Genomic Data | 7 |
| Amy Stanton Gooch <i>PhD Student, OIST</i> | Engineering Fluoroacetate Dehalogenase to Degrade Polyfluorinated Compounds | 8 |
| Ottavio Mattia Mazzaretto <i>Postdoctoral Scholar, OIST</i> | MetOcean Assessment Around Okinawa | 9 |
| Satoshi Takebayashi <i>Buribushi Fellow, OIST</i> | From 18- to 20-Electron Ferrocene Derivatives via a Ligand Coordination | 10 |
| Prajakta Kokate <i>PhD Student, OIST</i> | PEEM Imaging of Defect Structure in Passivated Perovskite Thin Films | 11 |
| Dmitry Kovalevskiy <i>PhD Student, OIST</i> | Persistent Charge Storage in Organic Solids with NIR Readout | 12 |
| Tatsumi Ishihara <i>Director, I²CNER, KU</i> | Hydrogen/ammonia synthesis by using bio photocatalyst | 13 |
| Aleksandar Staykov <i>Associate Professor, I²CNER, KU</i> | DFT simulation of organic / inorganic interface | 14 |
| Motonori Watanabe <i>Associate Professor, I²CNER, KU</i> | Dye-sensitized photocatalytic reaction for hydrogen production | 15 |
| Zhanglin Guo <i>Assistant Professor, I²CNER, KU</i> | Interfacial Molecule Design and Discovery for Perovskite Solar Cells | 16 |