



INTERNATIONAL INSTITUTE FOR CARBON-NEUTRAL ENERGY RESEARCH

2026 I²CNER ANNUAL SYMPOSIUM

“CHALLENGE AND INNOVATION

FOR A CARBON-NEUTRAL SOCIETY AND BEYOND”

I²CNER HALL/ HYBRID

ITO CAMPUS, KYUSHU UNIVERSITY

MONDAY, JANUARY 26TH, 2026

9:30 a.m. Opening Remarks

Tatsuro Ishibashi, *President, Kyushu University*

Akira Ukawa, *WPI Program Director*

Tatsumi Ishihara, *Director, I²CNER, Kyushu University*

9:45 a.m. Introduction

Shigenori Fujikawa, *Associate Director, I²CNER, Kyushu University*

Session 1: Innovation in material and electrical conversion for sustainability

9:50 a.m. Invited Lecture A

“Multijunction Solar Cells”

Anita Ho-Baillie, *Professor, School of Physics Faculty of Science, The University of Sydney*

10:20 a.m. Invited Lecture B

“What Is Geologic Hydrogen and Its Potential as a New Energy Resource?”

Tsubasa Otake, *Professor, Faculty of Engineering, Hokkaido University*

10:50 a.m. I²CNER Presentation A

“Steam Electrolysis by Use of Proton-Conducting Metal Oxides for Energy-Effective Hydrogen Production”

Hiroshige Matsumoto, *Professor, I²CNER, Kyushu University*

11:20 a.m. ***Lunch Meeting***

Session 2: Carbon capture technologies for sustainability

1:00 p.m. Invited Lecture C

“Membrane Solutions for Carbon Capture from Air and Flue Gas Streams”

Haiqing Lin, *Professor, Department of Chemical and Biological Engineering, University at Buffalo, The State University of New York*

1:30 p.m. I²CNER Presentation B
"Development of a Membrane-Based Approach to Direct Air CO₂ Capture: From Materials to Device"
Roman Selyanchyn, Associate Professor, I²CNER, Kyushu University

2:00 p.m. Invited Lecture D
"CCS-Originated Innovations Advancing Supercritical Geothermal, Natural Hydrogen, and Space Exploration"
Takeshi Tsuji, Professor, School of Engineering, The University of Tokyo

2:30 p.m. ***Photo session***

2:35 p.m. ***Coffee Break (Poster Session)***

Session 3: Building a carbon-neutral future with intelligence

4:00 p.m. Invited Lecture E
"Data Driven and AI Accelerated Design of Metal Organic Framework Materials for CO₂ Capture"
Tom Woo, Professor, Department of Chemistry and Biomolecular Science, University of Ottawa

4:30 p.m. Invited Lecture F
"Data Infrastructure and Machine-Learning-Guided Exploration of Battery Materials"
Yibin Xu, Group Leader, Data-driven Inorganic Materials Group, NIMS

5:00 p.m. I²CNER Presentation C
"Theoretical Design of Nanomaterials for CO₂ Gas Separation"
Aleksandar Staykov, Associate Professor, I²CNER, Kyushu University

5:30 p.m. Closing Remarks
Hiroshige Matsumoto, Associate Director, I²CNER, Kyushu University

Dinner at Big Orange (within ITO campus) *invitees only