



INTERNATIONAL INSTITUTE FOR CARBON-NEUTRAL ENERGY RESEARCH

**2021 I²CNER ANNUAL SYMPOSIUM:
A VIRTUOUS CYCLE: EMBEDDING THE ENERGY
TRANSITION IN POST-COVID-19 RECOVERY**
Virtual Symposium

TUESDAY, JANUARY 26, 2021, 9:00AM -1:00PM

- 9:00 a.m. Opening Remarks
Dr. Tatsuro Ishibashi, *President, Kyushu University*
Dr. Toshio Kuroki, *WPI Academy Director, Japan Society for the Promotion of Science*
- 9:10 a.m. Introduction
Prof. Petros Sofronis, *Director, I²CNER, Kyushu University*
- 9:20 a.m. Invited Lecture A
“Overview of Japan’s Green Growth Strategy”
Mr. Akihisa Matsuda, *Deputy Director, International Affairs Division, Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry (METI)*
- 9:50 a.m. Invited Lecture B
“U.S. Energy Policy in 2021 and Beyond”
Mr. Ross Matzkin-Bridger, *Energy Attaché and DOE Director, U.S. Embassy Tokyo*
- 10:20 a.m. Invited Lecture C
“Scenarios of a Sustainable Energy Transition: Perspectives from the U.S.”
Dr. Jill Engel-Cox, *Director, Joint Institute for Strategic Energy Analysis, National Renewable Energy Laboratory, U. S.*

- 11:00 a.m. **Invited Lecture D**
“Trade and tribulations: the reshaping of Australia’s energy supply sector during COVID-19”
Prof. Benjamin McLellan, Graduate School of Energy Science, Kyoto University and Research Fellow at Sustainable Minerals Institute, University of Queensland
- 11:40 a.m. **One-minute presentations by I²CNER young researchers** (*pre-recorded)
For a list of presenters, please see the attachment at the end of this program.
- 12:10 a.m. **Invited Lecture E** (*pre-recorded)
“The UK’s net zero target and economic recovery: What are the policy and technology challenges to clean growth?”
Prof. Robert Gross, Director, UK Energy Research Centre and Professor of Energy Policy and Technology at Imperial College London
- 12:40 a.m. **Wrap up**
Prof. Andrew Chapman, I²CNER, Kyushu University

MCs: Profs. Dino Klotz and Yukina Takahashi, I²CNER

One-minute Presenter Title List

	Thrust	Name	Title
1	AEM	Takeshi Yatabe	[NiFe], [FeFe], and [Fe] Hydrogenase Models from Isomers
2	AEM	Nguyen Hung Khac	Phycobilisome of water-soluble light harvesting protein complex
3	AEM	Tomohiro Noguchi	Direct observation of Ruthenium and H ₂ reaction process
4	AEM	Ming-Han Liu	Well-controlled Cu alloy catalysts for electrochemical CO ₂ reduction reaction
5	AEM	Hiroyoshi Tanaka	Effects of Transition Metals on Low Friction of DLC Coatings
6	AEM	Ryosuke Komoda	Mitigation and Induction of H ₂ -Assisted Cracking by NH ₃ in H ₂ Gas
7	AEM	Daisuke Takazaki	Degradation of Material in High-Temperature Hydrogen
8	AEM	Yurika Nakano	Novel Photoenergy Conversion Systems for Artificial Photosynthesis
9	AEC	Kwan-Ting Wu	Designing Highly Efficient Solid Oxide Electrodes for CO ₂ /H ₂ O Co-electrolysis
10	AEC	Dino Klotz	Photo-Enhanced Ionic Conductivity across Grain Boundaries
11	AEC	Ganbaatar TUMEN-ULZII	Enhancement of operational stability of perovskite solar cells
12	AEC	Zhenying Wang	Wetting Dynamics of Droplets with Phase Change
13	AEC	Li Huang	Water-in-salt electrolyte for High-Performance Aqueous Dual-Carbon Battery
14	AEC	Daniel Orejon Mantecon	Dropwise Condensation on Multi-scale Metallic Surfaces
15	MS3E	Nguyen Dinh Hoa	Decentralized Peer-to-Peer Energy Trading Systems
16	MS3E	Kaiser Ahmed Rocky	Activated carbon and ionic liquid based composite adsorbent
17	MS3E	Md. Matiar Rahman	Optimum isotherm models for IUPAC classified isotherms
18	MS3E	Mahua Jahan Rupa	Adsorption kinetics analysis of composite based green cooling system
19	MS3E	Tahmid Hasan Rupam	Surface characterization of adsorbent materials
20	MS3E	Shamal Chandra Karmaker	Environmental Taxes and Technological Innovation
21	PICP	Ikuo Taniguchi	CO ₂ Capture by Polymeric Membranes
22	PICP	Roman Selyanchyn	Interface-Active CO ₂ Separation Membranes for Industrial and Direct Air CO ₂ Capture

*AEM Advanced Energy Materials Thrust

*AEC Advanced Energy Conversion Systems Thrust

*MS3E Multiscale Science and Engineering for Energy and the Environment Thrust

*PICP Platform for International Collaborations and Partnerships