

I²CNER's 10th Anniversary Symposium in Tokyo Energizing the world and the future by strengthening research and cultural bridges across the Pacific

Date: December 16, 2019

Location: Hitotsubashi Hall (http://www.hit-u.ac.jp/hall/facility.html), Tokyo, Japan

MC: Andrew Chapman, Energy Analysis Division, I²CNER, Kyushu University

| Registration | 12:00- | |
|-------------------------|-------------|---|
| Opening | 13:00-13:05 | Chiharu Kubo |
| Remarks | | President, Kyushu University |
| Greetings | 13:05-13:20 | Yoshio Yamawaki Senior Deputy Minister, Ministry of Education, Culture, Sports, Science and Technology (MEXT) |
| | | Akira Ukawa |
| | | Program Director, World Premier International Research Center Initiative (WPI) |
| | | Nicholas Hill |
| | | Deputy Chief of Mission, The U.S. Embassy in Japan |
| Introduction | 13:20-13:40 | Petros Sofronis Director, I ² CNER, Kyushu University University of Illinois at Urbana-Champaign |
| Session I | 13:40-14:40 | Electrochemical energy conversion |
| I ² CNER's | | Tatsumi Ishihara¹, Nicola Perry² |
| "Headline" Successes | | ¹ Lead Principal Investigator, Molecular Photoconversion Devices Research Division, I ² CNER |
| Juccesses | | ² Materials Science and Engineering, University of Illinois at Urbana-Champaign, I ² CNER 15 minutes |
| | | Structural materials in gaseous environments |
| | | Masanobu Kubota ¹ , Akihide Nagao ² |
| | | ¹ Principal Investigator, Hydrogen Materials Compatibility |
| | | Research Division, I ² CNER |
| | | ² WPI Visiting Scholar, I ² CNER |
| | | 15 minutes |



| | | CO ₂ management Shigenori Fujikawa ¹ , Takeshi Tsuji ² ¹ Lead Principal Investigator, CO ₂ Capture and Utilization Research Division, I ² CNER ² Lead Principal Investigator, CO ₂ Storage Research Division, I ² CNER 15 minutes Catalysis for 21 st century energy technologies Seiji Ogo ¹ , Miho Yamauchi ² ¹ Lead Principal Investigator, Catalytic Materials Transformations Research Division, I ² CNER ² Principal Investigator, Catalytic Materials Transformations Research Division, I ² CNER 15 minutes |
|--|-------------|---|
| Session II Energy Transitions | 14:40-15:00 | Hydrogen-powered Japan/World Katsuhiko Hirose CEO Chief Consultant, HyWealth Co., I ² CNER 10 minutes Energy Trends in the United States Ross Matzkin-Bridger Energy Attaché, DOE Director, U.S. Embassy in Tokyo 10 minutes |
| Break | 15:00-15:15 | |
| Session III Foundation and Roadmap to the Future | 15:15-16:55 | Pushing toward the hydrogen-energy-based economy to realize a future carbon neutral society in Japan Ken Okazaki Unit Leader, Global Hydrogen Energy Research Unit Institute for Innovative Research Tokyo Institute of Technology 20 minutes The Role of CCUS in the Global Management of CO ₂ Emissions Michael Celia Director, Princeton Environmental Institute, Princeton University I ² CNER External Advisory Committee Member 30 minutes |



| | | The Role of Negative CO ₂ Emission in the Carbon-Neutral |
|-----------------|-------------|---|
| | | World |
| | | Toyoki Kunitake |
| | | Institute for Advanced Study, Kyushu University; |
| | | Nano Membrane Technology, Ltd. |
| | | 20 minutes |
| | | |
| | | Energy Without Carbon |
| | | George Crabtree |
| | | Director, Joint Center for Energy Storage Research, |
| | | Argonne National Laboratory |
| | | 30 minutes |
| Break | 16:55-17:10 | |
| Panel | 17:10-18:10 | James Stubbins, Moderator |
| Discussion | | Department of Nuclear, Plasma, and Radiological Engineering, University of Illinois at Urbana-Champaign, I ² CNER |
| | | Kataukika Hiraga |
| | | Katsuhiko Hirose |
| | | CEO Chief Consultant, HyWealth Co., I ² CNER |
| | | Michael Celia |
| | | Director, Princeton Environmental Institute, Princeton |
| | | University |
| | | George Crabtree |
| | | Director, Joint Center for Energy Storage Research |
| | | Argonne National Laboratory |
| | | Ken Okazaki |
| | | Unit Leader, Global Hydrogen Energy Research Unit |
| | | Institute for Innovative Research |
| | | Tokyo Institute of Technology |
| | | Yukihiro Higashi |
| | | Research Center for Next Generation Refrigerant Properties, |
| | | (NEXT-RP), I ² CNER |
| | | Kathryn Huff |
| | | Department of Nuclear, Plasma, & Radiological Engineering, |
| | | University of Illinois at Urbana-Champaign, I ² CNER |
| Closing Remarks | 18:10-18:20 | Rashid Bashir |
| | | Dean, Grainger College of Engineering, University of Illinois at |
| | | Urbana-Champaign |

