International Hydrogen Energy Development Forum & HYDROGENIUS Symposium 2025

< Date> December 17 (Wed) - 18 (Thu) , 2025 < Venue > Shiiki Hall, Ito Campus of Kyushu University

< Language > English

Day1

< December 17, 10:00--18:00 >

| Time | Opening Ceremony |
|-----------|---|
| 10:00-10: | [Welcome Address] Tatsuro Ishibashi President, Kyushu University (Video Letter) |

| Time | Presentation Title and Speaker |
|-------------|--|
| 10:30-11:30 | [Keynote Speech] Hydrogen and Fuel Cells: Past, Present, and Future Dr. Sunita Satyapal, Hydrogen Leader; Former Director, U.S. DOE Hydrogen and Fuel Cell Technologies Office |
| 11:30-12:00 | Natural Hydrogen and its potential in Kyushu Prof. Yasuhiro Yamada, Kyushu University |
| 12:00-12:30 | State of the Art and Knowledge Gaps in Hydrogen Pipelines Prof. Jinyang Zheng, Zhejiang University |
| 12:30-14:30 | Lunch & Poster |
| 14:30-15:00 | Introduction of Research Center for Hydrogen Industrial Use and Storage (HYDROGENIUS) Prof. Hisao Matsunaga, Kyushu University |
| 15:00-15:30 | Introduction of International Research Center for Hydrogen Energy & Next-Generation Fuel Cell Research Center (NEXT-FC) Prof. Kazunari Sasaki, Kyushu University |
| 15:30-16:00 | Introduction of International Institute for Carbon-Neutral Energy Research (I2CNER) Prof. Tatsumi Ishihara, Kyushu University |
| 16:00-16:15 | Coffee Break |
| 16:15-16:45 | Enabling safety and reliability in hydrogen systems through reliability and risk analysis: implications for fueling stations, forklifts, electrolyzers and beyond. Prof. Katrina Groth, University of Maryland |
| 16:45-17:15 | Hydrogen Refueling Station Data Analysis – How Polymeric Materials Are Actually Exposed to Pressure Cycling Associate Prof. Hiroaki Ono, Kyushu University |
| 17:15-18:00 | Poster Session |

| 18:15-20:00 | Reception / Jonathan K.S. Choi Cultural Center |
|-------------|--|
|-------------|--|

Day 2 < December 18, 9:30--17:00 >

| Time | Opening Ceremony |
|-------------|--|
| 09:30-09:40 | [Opening Remarks] Prof. Hisao Matsunaga, Kyushu University Director, Research Center for Hydrogen Industrial Use and Storage |

| Time | Presentation Title and Speaker |
|-------------|---|
| 9:40-10:20 | [Keynote Speech] Cost of Hydrogen – Introduction of IEA/H2TCP Task 50 – Prof. Michio Hashimoto, The University of Tokyo |
| 10:20-10:30 | ***Fatigue and Fracture*** HYDROGENIUS in Action: From Mechanisms to Industrial Implementation. Prof. Hisao Matsunaga, Kyushu University |
| 10:30-11:00 | Enduring International Partnerships as Catalysts for Innovation: from Fundamental Science to Engineering Materials Solutions for Hydrogen Technologies Prof. Petros Sofronis, University of Illinois Urbana-Champaign |
| 11:00-11:30 | Safety and Materials Challenges of High Pressure Hydrogen Pipeline Dr.Nobuyuki Ishikawa, JFE Steel Corporation |
| 11:30-13:00 | Lunch |
| 13:00-13:30 | ***Thermophysical Properties*** Thermal Analysis of Hydrogen Behavior during Refueling of Fuel Cell Vehicles Prof.Naoya Sakoda, Kyushu University |
| 13:30-14:00 | Thermodynamic Safety Evaluation of Hydrogen Storage Tank Installation Methods for Heavy-Duty Vehicles Dr.Taichi Kuroki, National Renewable Energy Laboratory |
| 14:00-14:10 | ***Polymers*** Research Activities on Hydrogen Compatible Polymeric Materials in HYDROGENIUS Prof. Shin Nishimura, Kyushu University |
| 14:10-14:40 | TBD |
| 14:40-15:10 | Polymers in Pressurized Hydrogen: Fracture Mechanical and Hollow-Specimen Approaches Dr. Bernd Schrittesser, ScioFlex Hydrogen GmbH |
| 15:10-15:30 | Coffee Break |
| 15:30-16:00 | *** Tribology *** Hydrogen Tribology Researches in HYDROGENIUS Prof. Yoshinori Sawae, Kyushu University |
| 16:00-16:30 | Tribological Performance of PTFE-free Thermoplastics in Hydrogen Dr. Geraldine Theiler, Federal Institute for Materials Research and Testing (BAM) |
| 16:30-17:00 | Hydrogen Effects on Friction and Wear in Dry and Boundary-Lubricated Contacts Prof. Ardian Morina, University of Leeds |

Host

Research Center for Hydrogen Industrial Use and Storage, HYDROGENIUS

Co Host

JAST Technical Committee on Tribology in Hydrogen

Supported by

New Energy and Industrial Technology Development Organization, NEDO

Hydrogen Energy Systems Society of Japan, HESS

Fuel Cell Development Information Center, FCDIC

Fuel Cell Commercialization Conference of Japan, FCCJ

The Association of Hydrogen Supply and Utilization Technology, HySUT

Hydrogen Energy Test and Research Center, HyTReC

Organization for Promotion Academic City by Kyushu University, OPACK

Engineering Advancement Association of Japan, ENAA

The Society of Rubber Science and Technology, SRIJ

The Japan Rubber Manufacturers Association, JRMA

Osaka Science & Technology Center, OSTEC

Fukuoka Prefectural Government

Fukuoka City Government

Japanese Society of Tribologists