

RWTH - Tokyo Tech Joint Workshop on Hydrogen

Digital Edition

December 01st / 02nd / 10th, 2021

Klick here to join the meetings:

Day 1 - December 01st

Day 2 - December 02nd

Day 3 - December 10th

Day 1 - Workshop Program

Opening

8:30 CET
16:30 JST
Opening by the Organizers
Prof. Stefan Pischinger, RWTH Aachen University
Dr. Osamu Watanabe, Tokyo Institute of Technology

Keynote-Speeches

8:40 CET
16:40 JST
"Introduction of "Tokyo Tech InfoSyEnergy Consortium" —
Hydrogen technologies in the future energy system toward
carbon-free society
Prof. Manabu Ihara, Tokyo Institute of Technology

9:00 CET
17:00 JST
Introduction on the Clusters4Future Hydrogen
The Future Hydrogen Economy and its Ecosystem: System-
wide and deep tech investigations combined
Prof. Stefan Pischinger, Institute for Combustion Engines, RWTH Aachen University

December 01st, 2021

Generation / Production

Prof. Stefan Pischinger, RWTH Aachen University
Prof. Tetsuya Suekane, Tokyo Institute of Technology

9:20 CET
17:20 JST
Hydrogen production and usage: Anion exchange
membrane water electrolysis and polymer electrolyte fuel
cells
Prof. Takeo Yamaguchi, Tokyo Institute of Technology

9:40 CET
17:40 JST
Oxygen Evolution Electrodes for Alkaline Electrolyzers
Prof. Anna Katharina Mechler, Electrochemical Reaction
Engineering, RWTH Aachen University

10:00 CET
18:00 JST
Carbon Dioxide Capture and Storage
Prof. Tetsuya Suekane, Tokyo Institute of Technology

10:20 CET
18:20 JST
Economic Potentials of Hydrogen Supply Chains
Prof. Reinhard Madlener, Institute of Future Energy
Consumer Needs and Behavior, RWTH Aachen University

10:40 CET
18:40 JST
Open Discussion

Registration via

<https://rwth.zoom.us/joining/register/1J0scey0rDotGNfBkpPLz5ykaQSZK7SaykFy>

Storage / Transportation

Prof. Stefan Pischinger, RWTH Aachen University
Prof. Ichiro Yamanaka, Tokyo Institute of Technology

- 8:30 CET**
16:30 JST
Semiconductor-based photocatalysts for hydrogen production and storage
Prof. Masahiro Miyauchi, Tokyo Institute of Technology
- 8:50 CET**
16:50 JST
Fibre-based Solutions for Sustainable Hydrogen Logistics
Prof. Thomas Gries, Chair of Textile Engineering, RWTH Aachen University
- 9:10 CET**
17:10 JST
New electrocatalysts and SPE electrolysis for synthesis of energy carrier compounds
Prof. Ichiro Yamanaka, Tokyo Institute of Technology
- 9:30 CET**
17:30 JST
Inline-quality assurance systems for the production of Type IV pressure-vessels in the wet-filament-winding process
Prof. Christian Hopmann, Daniel Schneider, Institute for Plastics Processing, RWTH Aachen University
- 9:50 CET**
17:50 JST
Multiscale analysis and design for production of hydrogen carriers
Assoc. Prof. Hideyuki Matsumoto, Tokyo Institute of Technology
- 10:10 CET**
18:10 JST
Membrane gas separation processes for hydrogen production
Prof. Matthias Wessling, Chemical Process Engineering, RWTH Aachen University
- 10:40 CET**
18:40 JST
Open Discussion

Registration via
<https://rwth.zoom.us/join/713pc-utrDkuEtRn-EJkNJ4zPgNjayuUKafu>

Application / Utilization

Prof. Stefan Pischinger, RWTH Aachen University
Prof. Teruoki Tago, Tokyo Institute of Technology

- 8:30 CET**
16:30 JST
All-Solid-State Batteries: Key Materials and Applications
Prof. Masaaki Hirayama, Tokyo Institute of Technology
- 8:50 CET**
16:50 JST
Fuel Cells from Basic Research to Current Applications
Prof. Ralf Peters, Institute of Energy and Climate Research, Forschungszentrum Jülich GmbH
- 9:10 CET**
17:10 JST
Hydrogen combustion for electric power generation and IC engine
Prof. Mamoru Tanahashi, Tokyo Institute of Technology
- 9:30 CET**
17:30 JST
Hydrogen: A seemingly simple fuel
Prof. Heinz Pitsch, Institute for Combustion Technology, RWTH Aachen University
- 9:50 CET**
17:50 JST
Conversion of CO₂ to fuel and chemicals
Prof. Teruoki Tago, Tokyo Institute of Technology
- 10:10 CET**
18:10 JST
Beyond H₂-capability: Improved efficiency and reduced emissions of H₂-fired gas turbines based on innovative process layouts
Prof. Manfred Christian Wirsum, Institute of Power Plant Technology, Steam and Gas Turbines, RWTH Aachen University
- 10:40 CET**
18:40 JST
Open Discussion

Registration via
<https://rwth.zoom.us/join/713pc-utrDkuEtRn-EJkNJ4zPgNjayuUKafu>