

1st. International Symposium On Thursday 15th. December 2022

@Kobe International Conference Center









Organized By

Tanaka Laboratory Kwansei Gakuin University (KGU) Japan

The 1^{st.} STACY International Symposium is supported by JST SICORP Grant Number JPMJSC21C3, Japan.

With the approval of President Osamu Murata, this symposium is endorsed by Kwansei Gakuin University.

STACY

Towards Safe Storage and Transportation of Cryogenic Hydrogen

Through the development of safety technology, improving the public acceptance of liquefied hydrogen, bringing about beneficial effects on the economy and society.

Scope of the Symposium

In order to achieve Carbon Neutrality, expectations for hydrogen are rising all over the world. In particular, cryogenic hydrogen has a high density and excellent economic efficiency and plays a fundamental role in realizing a hydrogen society. Therefore, this symposium is hosted to share information towards developing of safety technology for storge and transportation of cryogenic hydrogen and to improve the general public acceptance.

Access to Venue

Venue: Kobe International Conference Center

The closest station to this venue is Γ<u>Shimin Hiroba</u>
<u>Station</u> on the Port Liner. It takes about 3 minutes on foot from the station to the venue.



Correspondence



URL:

https://forms.gle/QjZZ8LEc7zWy2wnw8

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Program

| 8:30 | | Registration | Kobe International Conference Center 4F 401+402 |
|-------|--|---|---|
| | | Opening & Overview Session, Chaired by | / Takuro AOTANI |
| 9:00 | Opening Address | | Prof. Dr. Osamu MURATA President, Kwansei Gakuin University (KGU), Japan |
| | | Introduction to the STACY project - Towards Safe Storage and Transportation of Cryogenic Hydrogen | Dr. Ernst-Arndt REINECKE Forschungszentrum Jülich GmbH (FZJ), Germany |
| | STACY | WP 1 – Critical review and scenario identification WP 4 – Application: Safety methodology assessment | Dr. Ahmed BENTAIB Institut de Radioprotection et de Sûreté Nucléaire (IRSN), France |
| | | WP 2 - Combustion fundamentals | Dr. Nabiha CHAUMEIX Centre National de la Recherche Scientifique (CNRS), France |
| | | WP 3 – Catalytic recombination | Prof. Dr. Hirohisa TANAKA Kwansei Gakuin University (KGU), Japan |
| 10:35 | | Coffee Break | Serving drinks (Hot coffee, etc.) |
| | | Invited Lectures, Chaired by Kei | TANAKA |
| 10:50 | X-ray absorption spectroscopy study at SPring-8 on recombination catalysts for hydrogen safety | | Dr. Daiju MATSUMURA Japan Atomic Energy Agency (JAEA), Japan |
| | Application of the automotive catalyst to the passive autocatalytic recombiner | | Mr. Masashi TANIGUCHI Daihatsu Motor Co., Ltd. (DMC), Japan |
| | Possibilities to maintain the functionality of catalysts for hydrogen recombination under harsh conditions | | Dr. Jürgen DORNSEIFFER Chemical Consulting Dornseiffer (CCD), Germany |
| | Practical aspects of hydrogen recombiners | | Dr. Christel HARMS Hawker GmbH, Germany |
| | Air Liquide activities on liquid hydrogen and associated safety development | | Dr. Simon JALLAIS Air Liquide R&D, France |
| 12:30 | | Lunch | Serving Japanese "BENTO (Lunch Box)" |
| | | Liquefied Hydrogen Sessions, Chaired by 1 | Takumi ICHIKAWA |
| 13:20 | Invited Lecture Kawasaki Hydrogen Road | | Dr. Katsuya MORIMOTO Associate Officer, Hydrogen Strategy Division, Kawasaki Heavy Industries, Ltd. (KHI), Japan |
| | Interim Closing Remarks | | Mr. Sogo IWATA Tanaka Laboratory Kwansei Gakuin University (KGU), Japan |
| | Guidance for facility (CGS & Liq-H ₂ Receving Terminal) | | Mr. Suguru OYAMA Kawasaki Heavy Industries, Ltd. (KHI), Japan |
| | Tour Introduction | | Mr. Ryusei UENO Tanaka Laboratory Kwansei Gakuin University (KGU), Japan |
| 14:30 | | Bus Tour to Liq-H ₂ Facilities | Hydrogen co-generation system Liquefied Hydrogen Receiving Terminal Through the courtesy of Kawasaki Heavy Industries |
| | | Opinion Exchange Meetin | ig |
| 17:30 | | Reception | Enjoy buffet meals & the night view |
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Facilities (Liquefied Hydrogen Excursion)

Hydrogen Co-generation System

The world's first facility to supply heat and power from a 100% hydrogen-fueled gas turbine in urban areas.



Liquefied Hydrogen Receiving Terminal

World's largest spherical storage tank for stable storage of liquefied hydrogen, with a capacity of 11,200 cubic meters.

Source of Photo:

_https://www.khi.co.jp/hydrogen/
_https://www.hystra.or.jp/news/article.html#news12

