



# 1st. International Symposium

On Thursday 15<sup>th</sup>. December 2022

@Kobe International Conference Center



**Organized By**  
Tanaka Laboratory  
Kwansei Gakuin University (KGU)  
Japan

The 1st. 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 storage 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 「Shimin Hiroba Station」 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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#### Symposium Co-Chairs

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Mr. Kei TANAKA (M1)  
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#### Symposium Supervisor

Prof. Dr. Hirohisa TANAKA, KGU

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# Program

 <b>1<sup>st</sup>. STACY International Symposium</b> Towards Safe Storage and Transportation of Cryogenic Hydrogen		Date : 15 <sup>th</sup> . December 2022 Venue : Kobe International Conference Center
8:30 - 9:00	Registration	Kobe International Conference Center 4F 401+402
Opening & Overview Session, Chaired by Takuro AOTANI		
9:00 - 9:05	Opening Address	<b>Prof. Dr. Osamu MURATA</b> President, Kwansei Gakuin University (KGU), Japan
9:05 - 9:35	STACY	<b>Introduction to the STACY project</b> - Towards Safe Storage and Transportation of Cryogenic Hydrogen <b>Dr. Ernst-Arndt REINECKE</b> Forschungszentrum Jülich GmbH (FZJ), Germany
9:35 - 9:55		<b>Introduction to the STACY Project</b> - Towards improvement of LH2 risk assessment methodologies <b>Dr. Ahmed BENTAIB</b> Institut de Radioprotection et de Sûreté Nucléaire (IRSN), France
9:55 - 10:15		<b>Introduction to the STACY Project</b> - Cryogenics challenges in the explosion safety assessment <b>Dr. Nabiha CHAUMEIX</b> Centre National de la Recherche Scientifique (CNRS), France
10:15 - 10:35		<b>Introduction to the STACY Project</b> - Catalytic hydrogen recombination <b>Prof. Dr. Hirohisa TANAKA</b> Kwansei Gakuin University (KGU), Japan
10:35 - 10:50	Coffee Break	Serving drinks (Hot coffee, etc.)
Invited Lectures, Chaired by Kei TANAKA		
10:50 - 11:10	X-ray absorption spectroscopy study at SPring-8 on recombination catalysts for hydrogen safety	<b>Dr. Daiju MATSUMURA</b> Japan Atomic Energy Agency (JAEA), Japan
11:10 - 11:30	Application of the automotive catalyst to the passive autocatalytic recombiner	<b>Mr. Masashi TANIGUCHI</b> Daihatsu Motor Co., Ltd. (DMC), Japan
11:30 - 11:50	Possibilities to maintain the functionality of catalysts for hydrogen recombination under harsh conditions	<b>Dr. Jürgen DORNSEIFFER</b> Chemical Consulting Dornseiffer (CCD), Germany
11:50 - 12:10	Practical aspects of hydrogen recombiners	<b>Dr. Christel HARMS</b> Hawker GmbH, Germany
12:10 - 12:30	Air Liquide activities on liquid hydrogen and associated safety development	<b>Dr. Simon JALLAIS</b> Air Liquide R&D, France
12:30 - 13:20	Lunch	Serving Japanese "BENTO (Lunch Box)"
Liquefied Hydrogen Sessions, Chaired by Takumi ICHIKAWA		
13:20 - 13:50	Invited Lecture <b>Kawasaki Hydrogen Road</b>	<b>Dr. Katsuya MORIMOTO</b> Associate Officer, Hydrogen Strategy Division, Kawasaki Heavy Industries, Ltd. (KHI), Japan
13:50 - 14:00	Interim Closing Remarks	<b>Mr. Sogo IWATA</b> Tanaka Laboratory Kwansei Gakuin University (KGU), Japan
14:00 - 14:20	Guidance for facility (CGS & Liq-H <sub>2</sub> Receiving Terminal)	<b>Mr. Suguru OYAMA</b> Kawasaki Heavy Industries, Ltd. (KHI), Japan
14:20 - 14:30	Tour Introduction	<b>Mr. Ryusei UENO</b> Tanaka Laboratory Kwansei Gakuin University (KGU), Japan
14:30 - 17:00	Bus Tour to Liq-H <sub>2</sub> Facilities	1. Hydrogen co-generation system 2. Liquefied Hydrogen Receiving Terminal <b>Through the courtesy of Kawasaki Heavy Industries</b>
Opinion Exchange Meeting		
17:30 - 20:00	Reception	Enjoy buffet meals & the night view @Portopia Hotel Top Floor "GOCOUCU"
The 1 <sup>st</sup> . 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.		

# 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.



San-no-miya Sta.



## • Liquefied Hydrogen Receiving Terminal

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

*This tour of the liquefied hydrogen facilities is provided courtesy of Kawasaki Heavy Industries, Ltd.*

Source of Photo :

<https://www.khi.co.jp/hydrogen/>  
<https://www.hystra.or.jp/news/article.html#news12>

