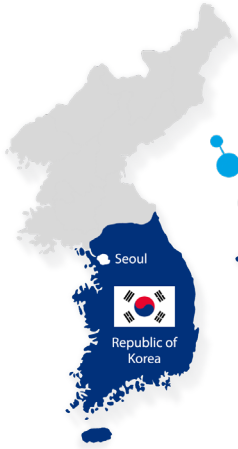

PROGRAM

SEPTEMBER 22-25, 2025

Lotte Hotel World, Seoul - Republic of Korea

ICHS®
International Conference on Hydrogen Safety

ORGANISED BY

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INTERNATIONAL ASSOCIATION FOR HYDROGEN SAFETY

KOREA GAS SAFETY CORPORATION

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	Monday, September 22, 2025
15:00	**Welcome Reception**
17:00	***Break Time***
18:30	**HySafe Annual General Meeting**
	Tuesday, September 23, 2025
	Opening Ceremony (09:00 - 09:30)
	Opening Remarks
	Address by HySafe
	Welcome Address by KGS
	Congratulatory Remarks by National Assembly member
	5 min Video (KOREA H_2 Industry)
	Closing
	Break Time
	Keynotes
09:40	**KOREA - MOTIE** **Duk Ryul Park - Director General for Hydrogen Economy Policy, MOTIE**
09:50	**JAPAN - METI** **Toru Muta - Director, METI**
10:10	**CANADA - NATURAL RESOURCES CANADA** **Olumoye (Moye) Ajao - Senior Manager and Engineer, NRC**
10:30	**UK - HSE** **Stuart Hawksworth - Head of Centre for Energy and Major Hazards, HSE**
10:50	***Break Time***

	Rooms of the day			
	Crystal 1	**Crystal 2**	**Crystal 3**	**Jade**
	1A1 Jet Flames I - Pierre Benard	**2A1 Composite Vessels - Georg Mair**	**3A1 Risk Assessment I - Mathias Henriksen**	**4A1 Fueling - Daniele Melideo**
11:10	**ID147 - Thermal Radiation of Inclined Large Scale Hydrogen Jet Flames** *Christopher Bernardy, Abdel Karim Habib, Philipp Maximilian zur Nedden, Jakob Georg Raimund von Saldern, Jan Paul Beuth, Alessandro Orchini*	**ID104 - Hydrogen High Pressure Thermoplastic Composite Pressure Vessel Behaviour During a Fire** *Stephane Villalonga, Bruno Fournel, Clement Hameon, Joel Toulc'Hoat*	**ID254 - Probabilistic Risk Assessment Developed With Strength of Knowledge for Hydrogen Gas Turbines Packages** *Nicola Vanni, Massimiliano Grosso, Matteo Ghisti, Claudio De Lorenzi*	**ID124 - Experimental Investigation of Volume Estimation Methods for Hydrogen Refueling Stations** *Rémi Gonin, Fouad Ammouri, David Vempaire, Bikram Roychowdhury, Bo Lu*
11:30	**ID149 - Thermal Radiation Due to Hydrogen Jet Fires: Experiments and Improvement of Engineering Models** *Vincent Blanchetiere, Romain Jambut*	**ID160 - Influence of Internal Pressure Regulation During Filament Winding on Failure Mechanism in Type 4 Pressure Vessels: A Case Study** *Bartosz Popiela, Stephan Günzel, et al.*	**ID165 - Uncertainty Quantification Implementation for Quantitative Risk Assessments of Hydrogen Systems** *Brian Ehrhart, Benjamin Schroeder, Dusty Brooks*	**ID164 - Modelling Hydrogen Tank Thermal Performance Using Zero-Dimensional Simulations** *Daniele Melideo, Umberto Desideri*
11:50	**ID155 - Experiments to Characterize the Heat Transfer from Non-Premixed Impinging Hydrogen Jet Flames** *Ethan Hecht, Gaby Bran Anleu, Gopakumar Ramachandran, Myra Blaylock*	**ID228 - Effective Modulus of Delamination Defects in Carbon Fiber Wound Hydrogen Storage Cylinders Based on Asymptotic Homogenization Method** *Xinran Wang, Changchen Liu, Li Ma*	**ID166 - Improved User Interface and Expanded Validation for HyRAM+** *Brian Ehrhart, Michael Devin, Ethan Hecht*	**ID203 - Experimental and Simulative Evaluation of Temperature Increase During Fast Filling of CGH_2 Tanks** *Nejc Klopčič, Thomas Hafner, Dominik Schiffer, Patrick Pertl, Alexander Trattner*
12:10	**ID291 - Absorption of Radiation from Hydrogen Jet Flames on Surfaces with Different Spectral Absorptivity** *Michael Försth, Andrea Correa, et al.*	**ID247 - Research on the Blister Damage in the Liners of Type IV High-Pressure Vessels for Hydrogen Storage** *Zhengli Hua, Peng Ruan, Hao Shi, Huiming Ding*	**ID302 - Social Risk Assessment Guideline for Large Scale Hydrogen Energy Systems** *Tadahiro Shibutani, Shunichi Hienuki, Njå Ove, Frank MarkeRt, Tzioutzios Dimitrios, Fedelico Ustolin, et al.*	**ID244 - Thermal Behavior of Conformable Hydrogen Tanks with TPRD During Fast Fuelling** *Hanguang Xie, Sergii Kashkarov, Dmitriy Makarov, et al.*
12:30	***LUNCH BREAK - SPONSOR EXHIBITION***			
	1A2 Jet Flames II - Donatella Cirrone	**2A2 Storage Vessels - Frank Markert**	**3A2 Risk Assessment II - Ove Njaa**	**4A2 Pipeline Materials - Tomás Grimault de Freitas**
13:40	**ID146 - Hydrogen Jet Flames Impinging on Surfaces: Validation of a CFD Model** *Mina Kazemi, Sile Brennan, Vladimir Molkov*	**ID186 - Comparative Behavior of Type I and IV High Pressure Gaseous Hydrogen Tanks During Ballistic Testing** *Etienne Studer, Sergey Koudriakov, Pierre-Alexandre Masset, Jean-Eudes Gauer, Richard Soulie, et al.*	**ID131 - Considerations on Incident Databases to Support the Safe Introduction of Hydrogen in the Energy Sector and New Applications** *Michael Krüger, Dieter Drews, Bernhard Linseisen, et al.*	**ID120 - Introduction of the SHIMMER Database for Safe Hydrogen Injection in the European Natural Gas Infrastructure** *Nilsah Ekici, Oded Sobol*
14:00	**ID256 - CFD Simulations of Consequences Due to Hose Ruptures During LH_2 Transfer** *Alexandros Venetsanos, Nektarios Koutsourakis, Ilias Tolias, Georgios Momferatos*	**ID201 - External Blast Induced Dynamic Response and Failure Analysis of Steel Ribbon Wound Vessel for Hydrogen Storage** *Yuanqi Liu, Yang Du, Fan Zhou, Kun Liu*	**ID253 - Model Uncertainty Evaluation for Hydrogen Consequence Prediction and Risk Assessment** *Lorenzo Mauri, Chris Coffey*	**ID134 - Integrity and Safety of Repurposed Hydrogen Pipelines in the European Union** *Erik Smedberg, Aurelien Pitois, Rémi Kleine, Beatriz Acosta Iborra, Pietro Moretto*

14:20	**ID266 - Modelling Radiative Heat Transfer to Closed LH2 Storage and Its Effect on Storage Parameters** *Mayank Kamboj, Donatella Cirrone, Dmitriy Makarov, Vladimir Molkov*	**ID189 - New Experimental Data for Fragments Behavior Following Cgh$_2$ Tank Bursts** *Etienne Studer, Sergey Koudriakov, Pierre-Alexandre Masset, Jean-Eudes Gauer, Richard Soulie, et al.*	**ID277 - Towards Uncertainty Quantification in Vented Hydrogen Deflagration Experiments** *Javier Camacho, Marcus Runefors, Joachim Lundberg*	**ID137 - Hydrogen Embrittlement Sensitivity of Pipeline Steel in Actual Hydrogen-Blended Natural Gas** *Juan Shang, Ruizhe Gao, Zhengli Hua*
14:40	**ID293 - On the Absorption in Air of Thermal Radiation from Hydrogen Jet Flames** *Andrea Correa, Michael Försth*	**ID327 - Effect of Autofrettage on the Fatigue Life of Cr-Mo Steel Hydrogen Storage Vessel** *Ruiming Zhang, Kai Ma, Chen Lu, Yanmei Yang, Jinyang Zheng*	**ID312 - Strength of Knowledge in Risk Assessments for Hydrogen Systems, Public Discourse, and Governance** *Trygve Skjold, Efthymia Derempouka, Melodía Lucas, Kangxue Zheng, Helene Hisken*	**ID214 - Life Prediction Modeling Study Through Accelerated Degradation Test of TPRD** *Jeonghyun Ham, Jonghee Kim*
15:00	***Break Time and POSTER (see below)***			
	1A3 Detonations and DDT – Sergey Dorofeev	**2A3 LH2 Tanks in Fire – Federico Ustolin**	**3A3 HRS & QRA – Katrina Groth**	**4A3 NH_3 Safety – Benno Weinberger**
15:20	**ID163 - Cost FX Phase II: Large-Scale Hydrogen Releases: Critical Mass Flow Rates Leading to Detonation** *Rob Crewe, Josue Melguizo-Gavilanes, Douglas Michael Johnson, Asmund Huser, Yanlin Yin, et al.*	**ID108 - Flame Mapping via Digital Image Processing for Modelling Liquid Hydrogen Storage Tanks Engulfed in Fires** *Alice Schiaroli, Christian Mata, Giordano Emrys Scarponi, Valerio Cozzani, Federico Ustolin*	**ID129 - Comparison of Quantitative Risk Analysis Methodologies for Hydrogen Refuelling Stations** *Jairo Andres Meneses-Gelves, Lorenza Saturnino, Pascale Vacca, Elsa Pastor, Eulalia Planas*	**ID125 - Ammonia as a Hydrogen Carrier: Production, Storage, Transport Safety, and Lessons Learned** *Esteban Paillery, Benno Weinberger, Aurore Sarriquet*
15:40	**ID238 - An Australian Field Trial with Unconfined Hydrogen Explosions Investigating Blast Effects and Structural Response** *Zhenying Huang, Edward Chern Jinn Gan, Alex Remennikov, Kasun Wijesooriya, Damith Mohotti*	**ID123 - Cryogenic Hydrogen Vent and Risks When Thermal Insulation Failure of LH_2 Tank** *Fangnian Wang, Jianjun Xiao, Michael Wolf, Thomas Jordan, Holger Neumann*	**ID210 - Multhyfuel Project - Risk Assessment Review of Critical Scenarios on Hydrogen Dispenser with Experimental Results** *Sébastien Quesnel, David Torrado Beltran, Ju-Lynne Saw, Benno Weinberger*	**ID219 - Key Characteristics of Hydrogen and Derivatives (Ammonia) and How to Reduce Risk Levels Through Risk Assessment** *A Reum Ko, Danillo Marques*
16:00	**ID239 - Dynamics of Cellular Detonation in High Pressure H_2-O_2-Air Mixtures** *Zifeng Weng, Remy Mevel, Zhuyin Ren, Shijin Shuai*	**ID234 - Numerical Simulation of Pressure Build-Up and Temperature Stratification in Cryogenic Hydrogen Tanks Engulfed in Fire Using OpenFOAM** *Muchen Zhang, Artemis Papadaki, Jairo Andres Meneses, Pascale Vacca, Alba Agueda, et al.*	**ID223 - Risk assessment of hydrogen product inspection and testing facilities using EFFECTS & RISKCURVES** *Joonsik Kim, Jinseo Kim, Unggi Yoon, Byoung-jik Park, Yangkyun Kim*	**ID251 - Development of safety codes for large-scale Ammonia-based hydrogen extractors manufactured on site** *Yurim Jo, Jinsun Kim, Daehoon Kang, Jian Choo, Minwoo Kim, Jaehwan Jung*
16:20	**ID306 - Large Scale Experimental Investigation on Delay Ignition of Impinged Under-Expanded Free Hydrogen Jet** *Agnieszka Lach, Knut Vågsæther*	**ID261 - The Internal Pressure Evolution in a Cryogenic Storage Tank Engulfed by a Fire** *Haris Nubli, Jennifer X Wen*	**ID246 - Dynamic Risk Assessment of Hydrogen Refueling Stations** *Jiaxin Zhang, Yaning Jiang, Qingxin Ba, Xiangling Kong, Zhixin Wu, Chenyi Yao, Chenhui Liu, Xuefang Li*	**ID296 - CFD Based Consequence Assessment for an NH_3 Fueled Ship** *Alexandros Venetsanos, Georgios Momferatos, Mariusz Przybylski, Ernesto Seidel, Simen Helgesen, Lars Vestbøstad, Kim Gästgivars, Odd Ivar Lindløv*
16:40	**ID364 - Detonation Transition of Shock-Flame Complexes in Fuel Blends of Hydrogen and Natural Gas** *Ramki Murugesan, Samaneh Miri, Hongxia Yang, Kevin Cheevers, Vinay Premnath, et al.*	**ID290 - Cryogenic Storage System Behaviour Under Fire** *Aliasghar Hajhariri, Robert Eberwein*	**ID231 - Systematic Risk Assessment of Hydrogen-Fueled Vessels Transporting Electric Vehicles** *Donghun Lee, Hyunjoon Nam, Hyungju Kim*	**Open**

Wednesday, September 24, 2025

PLENARY SESSION

FROM 09:00

Plenary Session

Hyundai - Seo Ho Choi (Vice President, Hydrogen Fuel Cell Development Center, Hyundai Motor Company)

SK E&S - Min Ho Kim (Vice President , SK Hyverse)

NEDO - Hidenori Saka (Director, NEDO)

HySafe RPW - Thomas Jordan (Senior Scientist, KIT)

Panel Discussion

10:40 — ***Break Time***

Rooms of the day

	Crystal 1	Crystal 2	Crystal 3	Jade
	1B1 Unignited Releases I – Sonia Benteboula	**2B1 Safety Distances – Benno Weinberger**	**3B1 Nuclear – Zhe Liang**	**4B1 Supply and Transport – Lee Phillips**
11:00	**ID115 - Reduced-Order Modeling of Hydrogen Releases from Vent Stacks and with Wind Effects** *Melissa Louie, Michael Devin, Ethan Hecht, Brian Ehrhart*	**ID140 - Comparison of Hydrogen Infrastructure Safety Distances: NFPA2 and PGS 35/EIGA Standards** *Alain Villanueva, Fernando Morente, Mirko Rupani*	**ID249 - Development of safety standards for water electrolyzer using nuclear power for green hydrogen production** *Hyorin Kim, Daehoon Kang, Jian Choo, Jaehwan Jung, Jungwoon Lee*	**ID133 - A Historical Analysis of Safety of Hydrogen Transport Technologies Based on Incidents Records** *Pietro Moretto, Aurelien Pitois, Erik Smedberg*
11:20	**ID128 - Numerical Investigation of the Effectiveness of Hydrogen Recombiners in Mitigating Indoor Hydrogen Accumulation Using ContainmentFOAM and OpenModelica** *Khaled Yassin, Stephan Kelm, Ernst-Arndt Reinecke*	**ID145 - Hydrogen Refueling Stations (HRS); Risk and safety Distances in the Netherlands** *Piet Timmers, Yannick Geertzema*	**ID152 - Analysis of Hydrogen and Toxic Gas Leakage from Hydrogen Production Plant for VHTR Nuclear Thermal Applications** *Chuzhen Peng, Zhang Han, Xinru Peng, Yingjie Wu, Fu Li*	**ID184 - Odorant Development for Safe Hydrogen Delivery** *Nicolas Blouin, Jasper Smets, Christophe Laroche, Adam Kuhl, Chad W. Brown, Daniel E. Arrieta*
11:40	**ID282 - A Comparative Study of Particle-Based Velocimetry Techniques in Turbulent Jet Measurements** *Chenyi Yao, Hao Chen, Yunpeng Zhang, Qingxin Ba, Teng Huang, Jiaxin Zhang, Mingjia Chen, Xuefang Li*	**ID330 - IEA TCP TASK 43 - Subtask Safety Distances: LH_2 Storage - State Of The Art** *Elena Vyazmina, Richard Chang, Lee Phillips, Benjamin Truchot, Vincent Basset, Deborah Houssin-Agbomson, Brian D. Ehrhart, Thomas Jordan, Shoji Kamiya, Tomoki Hara, Kazuhiro Hatayama*	**ID157 - A Risk Analysis Framework for Evaluating the Safety, Reliability, and Economic Implications of Electrolysis for Hydrogen Production at Nuclear Power Plants (RAFELHyP): Project Overview and Progress** *Katrina Groth*	**ID281 - Results of the STACY Project Towards Safe Storage and Transportation of Cryogenic Hydrogen** *Ernst-Arndt Reinecke, Ahmed Bentaib, Nabiha Chaumeix, Hirohisa Tanaka, Yves Ballossier, Jinjo Itsuki, Shannon Krenz, Tomohito Nakayama, Seita Kurono, Shinya Uegaki*
12:00	**ID339 - Benchmark Exercise of Engineering, Zonal, and CFD Models Related to H_2 Accumulation in Naturally Ventilated Enclosure** *Aurélien Soubeyran, Simon Jallais, Déborah Houssin-Agbomson*	**ID389 - IEA TCP Task 43 - Subtask C Safety Distances Methodology: Use of LH_2 for Hydrogen Mobility - New Modelling Approach Of Hazardous Phenomena** *Vincent Basset, Benjamin Truchot, Simon Jallais, Elena Wyazmina, Antoine Dutertre*	**ID271 - Fault Tree and Importance Measure Analyses of a PEM Electrolyzer for Hydrogen Production at a Nuclear Power Plant** *Samantha Wismer, Victoriia Grabovetska, Ahmad Al-Douri, Katrina Groth*	**ID393 - Hydrogen on the Move: Advancing Trailer Safety for a Low Carbon Future** *Gülay Kartal, Christiaan Rademakers*

12:20	***LUNCH BREAK – SPONSOR EXHIBITION***			
	1B2 Unignited Releases II – Lorenzo Mauri	**2B2 Blends -Enis Askar**	**3B2 Case Studies I – Huahua Xiao**	**4B2 Leak Detection I - William Buttner**
13:20	**ID200 - Simulation of a Hydrogen Release from a Horizontal Pointed Vent Mast on a Medium-Sized Ship** *S.A. Shibly Sadik, Knut Vågsæther, Dag Bjerketvedt, Mathias Henriksen*	**ID106 - Pilot Scale Testing of Hydrogen Blended Natural Gas on Residential Appliances** *Theodore Street, Michael Pegg*	**ID110 - The Role of Environmental Law in the Development of Green Hydrogen in Northern Sweden** *Maria Pettersson, Oskar Johansson*	**ID132 - Optimizing Hydrogen Leak Detection Systems Using Data-Driven Techniques** *Mirko Rupani, Fernando Morente Belmez, Mikel Minguez Fica, Enrique Vadillo Arenas, Alain Villanueva Merino*
13:40	**ID202 - CFD Modeling of Hydrogen Release and Dispersion in a Congested Container** *Hector Amino, Lynda Porcheron, Jérôme Daubech, Emilie Ricrot, Annabelle Brisse, Emmanuel Leprette, Olivier Hurisse*	**ID118 - A Case Study on Quantitative Risk Assessment of Accidental Release of Hydrogen Blends in Pipelines** *Kanchan Dutta, Marco Bazelatto Zanoni, Robert David, Zhe (Rita) Liang*	**ID153 - An H_2 Explosion Lumped Model for H_2-Propelled Aircraft Compartments** *Thomas Livebardon, Farès Laimouche, Botond Pal*	**ID170 - Evaluation of Gas Detector Arrangements for Ships Using Hydrogen as Fuel** *Hyunjoon Nam, Donghun Lee, Minjoo Kim, Hyungju Kim*
14:00	**ID236 - Relaxed Similarity for Predicting Hydrogen Leakage Around Buildings in a Scale Model** *Kefan Zhang, Xuanyi Zhou, Beihua Cong, Wei Wang, Hideki Kikumoto*	**ID136 - Safety Implications of Hydrogen Blend Leaks in Pipelines: A CFD Modeling Study** *Marco Zanoni, Aneesh john, Zhe Liang*	**ID171 - Fire-Rated Wall Impact on Explosion Consequences in Large Scale Hydrogen Facilities** *Alejandro Rosino Messa, Damien Seys, Giuseppe Abate, Charles Lefevre*	**ID172 - Highly Sensitive and Selective Hydrogen Sensors Via Synthesis of Novel Tio2 Based Nanospheres** *Thilini Thathsara, Christopher Harrison, Rosalie Hocking, Francois Malherbe, Mahnaz Shafiei*
14:20	**ID272 - Safety Assessment of Hydrogen Release in Underground Car Parks: a CFD Study on Ventilation Effectiveness** *Paola Russo, Maria Grazia Meo, Michele Mazzaro*	**ID333 - Buried Pipeline Leaks: a Comparative Study of Hydrogen and Methane Dispersion** *Shuvam Mohanty, Sile Brennan, Vladimir Molkov*	**ID233 - Predicting Hydrogen-Air Deflagrations in Complex, Congested Environments with Graph Neural Networks** *Ginevra Covoni, Valentina Bisio, Stefano Rossin, Marco Ruggiero, Francesco Montomoli, Vito Tagarielli*	**ID305 - Optical Hydrogen Detection Using Background Oriented Schlieren and Machine Learning; Facility Integration and data set expansion** *Ian Palin, Kevin Hartmann, David Peaslee, Donggyu Jang, William Buttner*
14:40	**ID340 - Comparison of Methods to Calculate the Flammable Mass of a High Pressure Delayed Ignited Releases** *Aurélien Soubeyran, Simon Jallais*	**ID371 - Impact of hydrogen blending on natural gas accident consequences** *Mark Pursell, Andrew Garrison, Dave Lander, Jonathan Hall*	**ID298 - Identifying and Addressing Perceptual Gaps Between Experts and the Public in Hydrogen Energy Acceptance: A Norwegian Case Study** *Rei Fukuda, Bonjun Koo, Dimitrios Tzioutzios, Federico Ustolin, Nicola Paltrinieri, Tadahiro Shibutani*	**ID278 - Automated Ultrasonic Detection System Based on Water Immersion for Multi-layered Steel Vessels** *Yangji Tao, Cunjian Miao, Xingji Du, Ping Tang, Weican Guo, Guoyang Teng, Shengyi Zhu*
15:00	***Break Time and POSTER (see below)***			
	1B3 Explosion Mitigation - Wookyung Kim	**2B3 LH2 Pools - Andreas Friedrich**	**3B3 Case Studies II – Hanjoo Lee**	**4B3 NH3 Modeling – Deborah Houssin**
15:20	**ID190 - Experimental Investigation of Shock Wave Attenuation by Shock Absorbing Material** *Joachim Grune, Karsten Sempert, Thomas Jordan*	**ID107 - A Multi-Stage Modeling Approach for Rainout, Pool Formation, and Dispersion of Liquid Hydrogen Releases** *Davide Rescigno, Hyunjoon Nam, Alexandros Venetsanos, Hyungju Kim, Federico Ustolin*	**ID217 - Hazardous Area Classification Example of High-Pressure Hydrogen Releases in a Compressor Enclosure** *David Torrado Beltran, Sebastien Quesnel, Valerie Naudet, Neil Dennis, Karin Hessen Kristansen, et al.*	**ID144 - Effect Modelling of Ammonia Pipeline Ruptures** *Yannick Geertzema, Elin Bloem, Mark Spruijt*

15:40	**ID191 - Experimental Investigation of Blast Wave Attenuation by Water Spray** *Joachim Grune, Karsten Sempert, Thomas Jordan*	**ID150 - Reduced Order Models for Liquid Hydrogen Pooling and Vaporization Supported by Experiments** *Ethan Hecht*	**ID241 - Quantitative Risk Assessment of a 100% Hydrogen Pipeline: a Comparative Expercise Between Southern and Northern Europe** *Ricardo Bernardino, Mário A. Silva, Nuno Canha, Edgar C. Fernandes*	**ID154 - Atmospheric Dispersion of Ammonia in 800 Meters Domain Under Real Wind Conditions: Simulations Versus Experiment** *Srinivas Sivaraman, Dmitriy Makarov, Benjamin Truchot, Vladimir Molkov*
16:00	**ID222 - Experimental Study on the Explosion Risks of Hydrogen-Air Mixtures in Confined Spaces** *Unggi Yoon, Joonsik Kim, Byoungjik Park, Inju Hwang, Yangkyun Kim, Wookyung Kim*	**ID299 - Bunding of Large LH_2 Spills** *Thomas Jordan, Mike Kuznetsov, Stuart Hawksworth*	**ID285 - Hydrogen Safety in Hydrogen Transportation Through Electric Cables at Offshore Wind Farms** *I.C. Tolias, G. Momferatos, H.P. Kyriakopoulou , A.G. Venetsanos, G. Georgallis*	**ID209 - Experimental Study on Quenching Distance of Hydrogen-Ammonia Blended Fuel in Air** *Jun-ichi Suematsu, Naoto Kawashima, Shou Komatsu, Tomohiko Imamura*
16:20	**ID280 - Evaluation of Detonation Suppression Performance of Mesh-Type Flame Arresters in Hydrogen-Oxygen Gas Piping** *Tei Saburi, Hiroumi Shiina, Akira Matsugi, Shiro Kubota, Manabu Okuyama, Keito Ichinose, Motohiko Sumino, Hideyoshi Horie*	**ID378 - Study on Transient Heat Transfer and Evaporation Rate of Liquid Hydrogen Under Different Ground Materials** *Akhiro Nakano, Tomoki Hara*	**ID359 - Methodology and Analytical Tool to Evaluate Risk Decision Processes of Large-Scale Hydrogen Energy Systems** *Ove Njå, Ingrid Glette-Iversen, Ernst-Arndt Reinecke, Jon T. Selvik, Tadahiro Shibutani, Trygve Skjold, Helene Hisken*	**ID351 - Comparative Study of the Hazardous Range of Ammonia and Hydrogen Releases and the Effect of Hydrogen Blending on Ammonia Ignition and Fires** *Chonglv Cheng, Baopeng Xu, Jennifer X Wen*
16:40	**ID367 - Explosive Characteristics of Hydrogen-Air Mixtures Diluted with an Inert Gas** *Mathias Henriksen, Dag Bjerketvedt*	**ID349 - Liquid hydrogen pool spreading and vaporisation: a benchmark exercise of available modelling tools** *Kodjo Coudoro, Simon Jallais*	**ID392 - Multhyfuel Project: Example Hazardous Area Classification on Hydrogen Dispense** *David Eduardo Torrado Beltran, Sebastien Quesnel, Elena Vyazmina, Ju-Lynne Saw, Nick Hart*	**ID365 - Validation of Ammonia Dispersion Modelling and Source Term Definition for Long Time Exposures** *Andreas Mack*
17:00	***Break Time***			
18:30	**Gala Dinner with Traditional Korean Performances**			

Thursday, September 25, 2025

Rooms of the day

	Crystal 1	Crystal 2	Crystal 3	Jade
	1C1 Explosion CFD – Yura Sevcenco	**2C1 LH2 Release – Stuart Hawksworth**	**3C1 Material Compatibility – Aurelien Pitois**	**4C1 Electrolyzers – Thomas Jordan**
09:00	**ID143 - Application of High-Fidelity Numerical Methods in Simulating Hydrogen Explosions: Development of an Advanced CFD Tool XFAST** *Mingbin Zhao, Xu Zhang, Huahua Xiao*	**ID103 - Snapshot Proper Orthogonal Decomposition to Model Cryogenic Hydrogen Release Dynamics** *Javad Mohammadpour, Qingxin Ba, Xuefang Li, Fatemeh Salehi*	**ID161 - A Modular Concept for Protection against Debris Flight - Design, Properties and Usage** *Georg Mair, Karsten Müller, Andreas Kriegsmann, Christian Sklorz*	**ID119 - Safety Challenges in Upscaling High-Pressure Alkaline Hydrogen Production** *Angelina Kurkova, Niels Geijsen, Andrew Crerand*
09:20	**ID193 - Evaluating CFD Models Using the CostFX Phase II Full-Scale Hydrogen Explosion Experiments Including Prediction of Detonations** *Yanlin Jin, Jamie Thompson, Asmund Huser, Douglas Michael Johnson, Rob Crewe, Felix Weise, Josue Melguizo Gavilanes, Andrzej Pekalski, et al.*	**ID292 - The DISCHA Engineering Tool for LH_2 Tank to Tank Transfer Operations** *Alexandros Venetsanos, Ilias Tolias, Nektarios Koutsourakis, Federico Ustolin*	**ID232 - Hollow Specimen Method for Tests in High-Pressure Hydrogen Gas: The Role of Strain-Rate and Surface Quality** *Tomás Grimault de Freitas, Zephanja Krzysch, Florian Konert, Jonathan Nietzke, Oded Sobol*	**ID178 - Hydrogen Dispersion Simulation and Hazard Evaluation: CFD Simulation of an Abrupt H_2 Release in an Electrolysis Container and Safety-Relevant Evaluation** *Martin Krennboeck, Thomas Stöhr, Julius Rauh, Thomas Uitz, Markus Sartory, Alexander Trattner*
09:40	**ID215 - Research on Hydrogen Leakage, Explosion, and Hazard Assessment at Hydrogen Refueling Stations** *Hancheng Lu, Baoling Guo, Yufeng Yan, Jingxin Yao, Zilong Xu, Baoqing Liu*	**ID346 - Effect of Pressurised Liquid Hydrogen Residence Time on Downstream Release Conditions** *Greg Wray*	**ID265 - In-situ wear behavior of various rubber under hydrogen atmosphere.** *Byeong-Lyul Choi, Un Bong Baek, Byoung-Ho Choi*	**ID300 - Development of a Digital Twin for Hydrogen Dispersion and Safety Assessment in a Hydrogen Production Facility** *Munjal Purnkant Shah, David Peaslee, Shadi Salahshoor, Rabia Ali, James Stewart, Kevin Hartmann, Jeffery Gifford, et al.*
10:00	**ID229 - An Analytical Method to Predict Consequences of Partial Volume Deflagrations for Hydrogen** *Valentina Bisio, Francesco Montomoli, Vito Tagarielli, Elena De Leo, Stefano Minotti, Stefano Rossin*	**ID348 - Leakage and Dispersion of Liquid Hydrogen in a Tank Connection Space** *Wayne Rattigan, Janet Welch, Janni Vizma, Greg Wray, Simon Coldrick, Liam Gray*	**ID288 - Analysis of Low Temperature Interfacial Leakage in Hydrogen Fuel Cell Vehicle O-rings** *Sang Min Lee, Byeong-lyul Choi, Byoung-Ho Choi*	**ID122 - Ignition Indices of Hydrogen Mixtures under Electrolysis Process Conditions** *Enis Askar, Martin Schmidt, Hayat El Harrab, Andrzej Pekalski*
10:20	**ID287 - Effect of Equivalent Ratio on Explosion Characteristics of Premixed Low-Temperature Hydrogen/Air in a Closed Channel** *Xiangyu Shao, Panpan li, Jian Wang, Ligang Zheng, Jianliang Gao*	**ID399 - Determination of Time Relaxation Coefficient in Lee Model for Liquid Helium Release and Dispersion** *Volodymyr Shentsov, Dmitriy Makarov*	**ID176 - The outsized effect of minute contaminants on the physical properties of H_2 as shown through the example of industrial forced draft burners** *Bela Sebok, Adam Kovalovszki, Niels Bjarne Rasmussen*	**ID181 - A Review of Hydrogen Ignition Probability Based on Large-Scale Test Results** *Daniel Allason, Ann Halford, Douglas Michael Johnson*
10:40	***Break Time***			

	1C2 Tank Ruptures, BLEVES – Jennifer Wen	2C2 Underground Storage – Trygve Skjold	3C2 Machine Learning – Josue Melguizo-Gavilanes	4C2 Leak Detection II- Yangkyun Kim
11:00	**ID109 - Modelling of the Consequences of Accident Scenarios Involving Liquid Hydrogen Equipment** *Federico Ustolin, Davide Furlani, Alice Schiaroli, Valerio Cozzani*	**ID111 - Underground Hydrogen Storage in Salt Caverns: A Quantitative Risk Assessment** *Franco Polidoro, Domenico Enicchiaro, Maria Portarapillo, Almerinda Di Benedetto*	**ID121 - Hydrogen Mixtures Flammability Limits Prediction Using Machine Learning Models** *Josua Kondja Junias, Enis Askar, Kai Holtappels, Max Thewis, Shaanika Erasmus, Christian Liebner*	**ID130 - Hydrogen Removal with Recombiner Technologies: Performance Data and Applications** *Zhe (Rita) Liang, Lee Gardner, Kanchan Dutta, Laura Merlo-Sosa*
11:20	**ID187 - New Experimental Data for Blast Waves and Fireball Size Prediction Following Burst of CGH_2 Tanks** *Etienne Studer, Sergey Koudriakov, Pierre-Alexandre Masset, Jean-Eudes Gauer, Richard Soulie, Etienne Havret, Francois Sauzedde*	**ID112 - Risk Management and Consequence Control in Hydrogen Transport: Volume-Dependent Pressure Limitation as a Scientific Approach for Consequence Control** *Georg Mair, Stephan Günzel, Robert Bock*	**ID352 - Towards Data-Driven Turbulent Flame Closure Model in Large-Scale Hydrogen Gas Explosion Simulation** *Jihao Shi, Jennifer Wen, Asif Sohail Usmani*	**ID205 - Fast Detection of Hydrogen Leaks in Gas Turbine Package** *Viola Sorrentino, Riccardo Viti, Giovanni Tonno, Stefano Minotti*
11:40	**ID303 - "Throughout" Multiphase CFD Model for the Assessment of Blast Wave and Fireball Generated by a Liquid Hydrogen Storage Tank BLEVE** *Donatella Cirrone, Dmitriy Makarov, Vladimir Molkov*	**ID117 - Risk Assessment Spatial Differences and Societal Risk for Aboveground Leaks from an Underground Hydrogen Storage System** *Melissa Louie, Brian Ehrhart*	**ID353 - Development of a Methodology for Predicting the Effects of a Barrier in a Hydrogen Refueling Station During a Vapor Cloud Explosion Using a CFD Analysis and a Machine Learning Technology** *Hyung-Seok Kang, Hyunseok Min, Chul-Hee Yu*	**ID297 - Small Burning Hydrogen Leaks in Industrial Plants: A Comparison of UV and IR Remote Imaging Detection** *Jens Brunzendorf*
12:00	**ID398 - Simulations of Blast Wave After Hydrogen Tank Rupture in Fire Using LS-DYNA** *Atish Gawale, Sergii Kashkarov, Vladimir Molkov*	**ID258 - Large-Scale Hydrogen Storage in Offshore Salt Caverns: Critical Scenarios and Challenges Related to Explosion Safety** *Helene Hisken, Trygve Skjold*	**ID397 - Hydrogen Leakage Source Inversion in a Garage Based on Bayesian Method and Adjoint Equations** *Yichen Zhang, Xuanyi Zhou, Beihua Cong*	**ID368 - Innovative Fixed Acoustic Camera for 24/7 Leak Detection and Localization in Hydrogen Infrastructure, and More** *Deborah Houssin-Agbomson, Xavier Guichard, Sébastien Levecq, Mickaël Lecocq, Nathalie Ducellier, Florian Perrodin*
12:20	***LUNCH BREAK – SPONSOR EXHIBITION***			
	1C3 Explosion Model(l)ing – Sergii Kashkarov	2C3 Cryo Effects on Air - Mike Kuznetsov	3C3 Risk/Mitigation - Kanchan Dutt	4C3 Miscellaneous – Etienne Studer
13:20	**ID126 - Blast Wave Evolution for Hydrogen Tank Rupture in a Tunnel: Numerical Simulations Using the Equivalent Energy Approach** *Sergey Koudriakov, Etienne Studer, Pierre-Alexandre Masset*	**ID135 - Liquefaction and Solidification of Air After Full-Bore Rupture of LH_2 Pipeline: Validation of a Multiphase CFD Model** *Hazhir Ebne-Abbasi, Dmitriy Makarov, Vladimir Molkov*	**ID177 - Quantification of Risks posed by Natural Gas, Hydrogen Blends and Hydrogen with End Use in Homes** *Andrew Phillips*	**ID220 - Assessment of ammonia leakage dispersion and dissipation time during bunkering** *Danillo Oliveira Marques, Aiman Latif, Tarek Bengherbia*
13:40	**ID198 - Hydrogen Release and Ignition in a Semi-Confined Area of a Fuel-Cell Truck Following Collision** *Marcus Runefors, Konrad Wilkens Flecknoe-Brown, Javier Camacho, Stig Boman, Staffan Lundgren*	**ID308 - Cryo-Temperature Limits for Gaseous Hydrogen Deflagration** *Igor Kirillov, Vadim Plaksin, Boris Potapkin, Ivan Zaev, Maxim Deminsky, Vasiliy Khorkov, Denis Shirabaikin*	**ID264 - Review on Conventional Safety Measures in Traffic Tunnels with Hydrogen Safety Concerns** *Zhanjie Xu, Thomas Jordan, Mike Kuznetsov*	**ID162 - Friction between Metals as a Source of Ignition for Mixtures of Hydrogen and Air** *Florian Baumann, Lucas Moewes, Michael Hau, Carola Schierding, Michael Beyer*

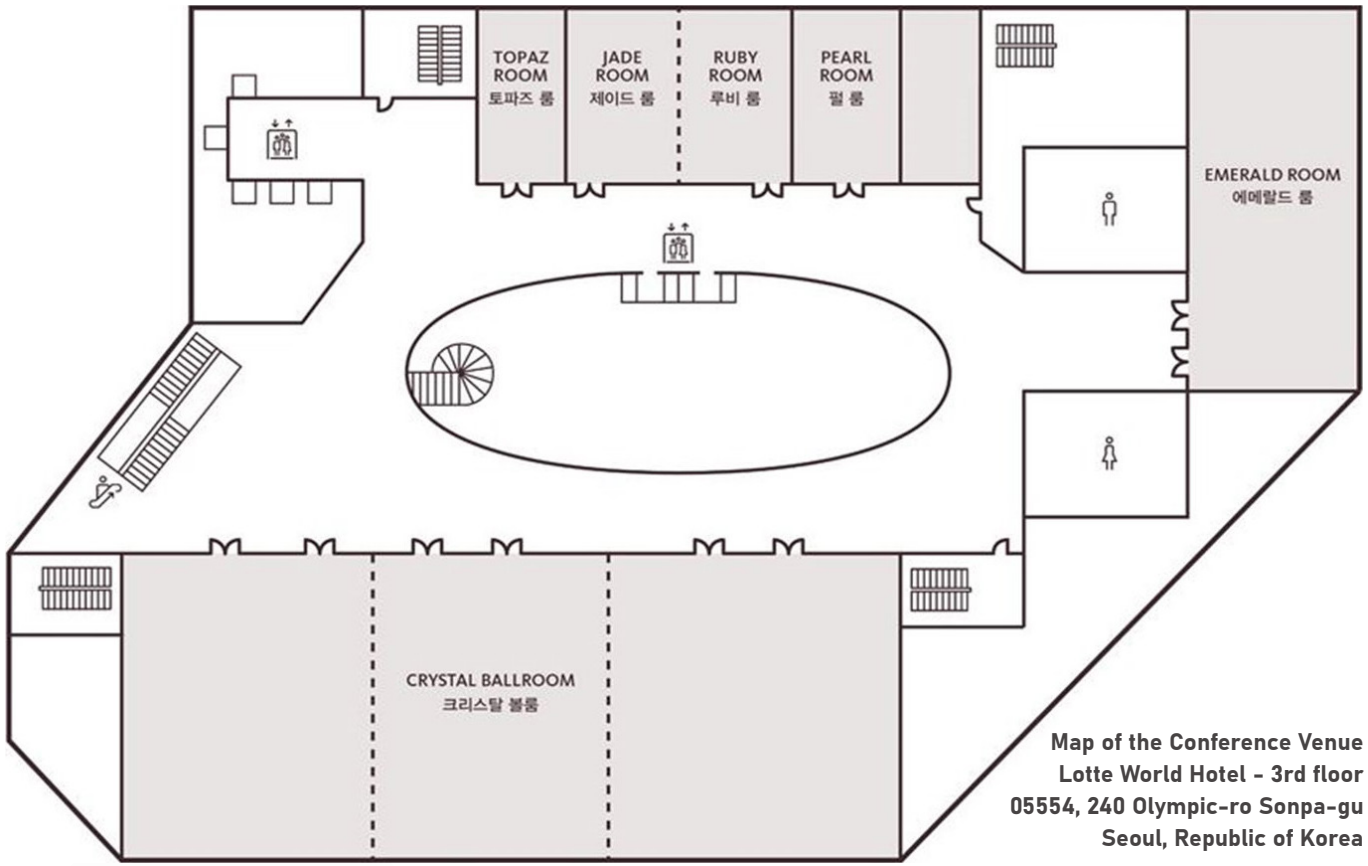
14:00	**ID199 - Hydrogen Dispersion and Explosions in a Tunnel Environment: A Numerical Study** *Chonglv Cheng, Mengfan Z. Zhang, Baopeng Xu, Jennifer Wen*	**ID345 - Oxygen Enrichment Mechanisms of Condensed Phase Air in Liquid Hydrogen Environments** *Janet Welch, Janni Vizma, Greg Wray, Wayne Rattigan*	**ID362 - Risk and Safety Assessment Regarding Implementation of New Hydrogen Technologies in Rail Transport** *Marek Pawlik, Paul Adams, Adrian Kaźmierczak, Jolanta Maria Radziszewska-Wolińska, et al.*	**ID284 - Numerical Analysis of the Inhibiting Effect of Phosphorus Compounds on Hydrogen-Air Explosions** *Kangxue Zheng, Trygve Skjold, Helene Hisken*
14:20	**ID318 - Effect of Aspect Ratio on Explosion Characteristics of Premixed Low-Temperature Hydrogen/Air in a Closed Channel** *Panpan Li, Jianliang Gao, Xiangyu Shao, et al.*	**ID347 - Liquid Hydrogen and Condensed Air Pool Formation in Open-Topped Compartments** *Greg Wray, Janni Vizma*	**ID369 - A Method for Evaluating Hydrogen Cylinder Leakage in Vehicles Based on the Minimum Safe Dilution Volume Coefficient** *Zhaoting Chen, Jianfeng Shi, Yuxin Liu*	**ID334 - A Study on The Performance Changes of Korean Combustion Appliances Using Hydrogen-Blended Natural Gas** *Hyun Gook Shin, Seung Gyun Jeong, Yeong Gwang Jo, Jeong Seok Oh*
14:40	**ID366 - Towards a Reliable Methodology for Assessing Overpressure in Hydrogen Vents** *Josue Melguizo-Gavilanes, Adisa Jarubenjaluk, Andrzej Pekalski, Andrew Crerand*	**ID226 - Impact of Initial Hydrogen Density on Dormancy Behavior and Venting Risks in Liquid Hydrogen Storage Tank** *Jejun Choi, Byeonghyun Kang, Min Soo Kim*	**ID370 - Hazards Associated with the Delayed Ignition Of Hydrogen Releases – A Hydrogen Safety Panel White Paper** *Lee Phillips, Aaron Harris, Dani Murphy, Chris LaFleur, Annemarie Purmer, Gary Stottler, David Moore, et al.*	**ID341 - Development of Metering Technology for Middle-Flow Hydrogen Filling Using the Master Meter Method** *Toshihiro Morioka, Shigeru Sakurai*
15:00	***Break Time***			
FROM 15:20	**BEST PAPER AWARDS** (HySafe)			
	Closing Ceremony Guidance (Hyukryeol Kwon)			
	ICHS2027 Presentation			
	Appreciation Remarks from KGS (Heejun Park)			
	ICHS2025 Summary and Announcement - Closing Remarks (Nick Smith and Marco Carcassi)			

Poster Session (Ruby room)

ID142 - Procedure for Recommissioning of H_2 Bus Refueling Systems at KIT *Andreas Friedrich, Anke Veser, Thomas Jordan, Jeremi Rietz, Torsten Schuler*	**ID173 - Experimental Study on Flame Propagation and Blast Wave of Vented Explosions in Underground Hydrogen Stations** *Yichen Gan, Akihiro Ueda, Unggi Yoon, Yangkyun Kim, Wookyung Kim*	**ID180 - Feasibility of Using Electrical Resistivity Tomography to Image Underground Gas Migration** *Haoran Che, Marcus Runefors, Thushadh Wijesekere, Torleif Dahlin*	**ID212 - Safety Management Solution for Semi-Enclosed Space HRS** *Sehyeon Oh, Jeawon Moon, Byungchol Ma*
ID221 - Impact of Ambient Wind on Hydrogen Leak Diffusion for Hydrogen Fuel Cell Trucks *Weiyi Cui, Yupeng Yuan, Liang Tong, Xiaofang Zhu, Jinsheng Xiao*	**ID230 - Real-scale Experiments on Hydrogen Consumption for Catalyst Design of PAR** *Seita Kurono, Tomohito Nakayama, Sinya Uegaki, Itsuki Jinjo, Shannon Krenz, Ernst-Arndt Reinecke, et al.*	**ID252 - Exhaust Gas Characteristics of Fuel Cell Vehicles (FCV) on Highway** *Takashi Nohmi, Taeko Fujii, Yorikazu Sugawara, Yuki Yoshiyama, Toshio Mogi, Koji Yamazaki, Ikuo Kojima*	**ID263 - Multi-Stage Catalyst to Prevent Hydrogen Explosions in Liquid Hydrogen Leakage and Self-Ignition by Reaction Heat** *Itsuki Jinjo, Tomohito Nakayama, Shinya Uegaki, Seita Kurono, Takuro Aotani, Shannon krenz, et al.*

ID276 - The Effect of Hydrogen Embrittlement in Sensitized 304 Stainless Steel *Yaebi Hwang, Hanji Park, Un Bong Baek*	**ID316 - Analysis of Fracture Behavior of Cr-Mo Steel in High Pressure Hydrogen Environment** *Jaeyeong Park, Kyung Oh Bae, Thanh Tuan Nguyen, Un Bong Baek*	**ID321 - Inspection and Replacement Interval Analysis of Pressure Vessels in Hydrogen Refueling Stations Considering Operational Fatigue: A Case Study in South Korea** *Jeong Hwan Kim, Hwa Young Lee, JeongSeok Oh*	**ID325-Analysis of Overseas Prior Research and Introduction Cases Related to Hydrogen Mixing in City Gas Pipelines** *Jieun Kim, Sungsu Jang, Teaheon Kim*
ID326 - Technical Standards and Trends of Hydrogen Forklifts and Refueling Facilities Utilizing Hydrogen Storage Alloy Systems *Bomyung Kim, Daeun Kim, Seunghwan Kim*	**ID329 - Development of Air Operated Valves For Hydrogen, and Suggest the Revision of the Standard of Valves on Hydrogen Fueling Station** *Ji Hoon Park, Dong Hoon Lee, Gi yoek Ha, Hyun soo Yang, Tae Il Ha*	**ID332 - Development of a Real-Time Risk Assessment Method for Hydrogen Charging Stations** *Jung Hoon Kim, Han Joo Lee, Kug Jin Suh*	**ID336 - Development of Assessment Methods for Fueling Safety Performance of Hydrogen Refueling Stations in Korea** *Keunseon Sim, Donghoon Lee, Sungsoo Jang, Wondon Ju*
ID338 - A Comparative Assessment of Failures Between a Pem Electrolyzer and a PEM Fuel Cell *Farhana Yasmine Tuhi, Marta Bucelli, Yiliu Liu*	**ID342 - Local Hydrogen Enrichment in Circumferential Welded Joint of X52 Hydrogen Pipeline** *Qian Wu, Anfeng Yu, Zhe Yang, Wei Xu, Wenyi Dang, Junjie Feng*	**ID358 - Derivation Of Preemptive Stack Accident Prevention Measures According To Prediction Of Accident Damage To Electrolyser** *Jeagyeong Kim, Chul-hee Yu*	**ID361 - A Study on the Risk of Leakage in Piping of Liquefied Hydrogen Handling Facilities Using CFD Tools** *Ju Hyeon Park, Jeong Hwan Kim*
ID363 - A Review of Safety Codes for Hydrogen Pipelines in South Korea's Hydrogen City Projects *Yohan Pak, Yewon Kim*		**ID381 - Liquid Expansion as a Cause of Rupturing Ammonia Filled Cylinders** *Byoungil Jeon, Changhyup Park, Cheol Kang*	

SEE YOU IN 2027!



Map of the Conference Venue
Lotte World Hotel - 3rd floor
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Seoul, Republic of Korea

HySafe Members