



International Conference
on Hydrogen Safety



HySafe invites you to the unique

INTERNATIONAL CONFERENCE ON HYDROGEN SAFETY

SEPTEMBER 11-13, 2017

HANDELSKAMMER, ADOLPHSPL. 1, 20457 HAMBURG (GERMANY)

WITH THE
ENDORSEMENT OF

IN COLLABORATION
WITH

CONFERENCE
SCOPE

CONFERENCE
STRUCTURE



U.S. DEPARTMENT OF
ENERGY | Energy Efficiency &
Renewable Energy
FUEL CELL TECHNOLOGIES OFFICE

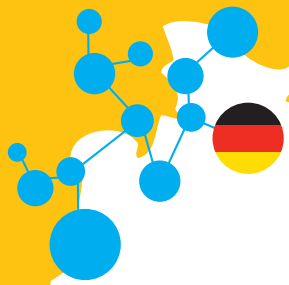


The 7th International Conference on Hydrogen Safety ICHS 2017 will be held in Hamburg, Germany on September 11-13, 2017 under the auspices of the International Association for Hydrogen Safety "HySafe", see www.hysafe.info.

Since 2005 this biennial event succeeded in attracting the world's leading experts, by providing an open platform for presenting and discussing new findings, information and data on hydrogen safety covering the wide range of areas: from basic to applied research, development, risk assessment, standardization and regulations.

As commercialization of hydrogen fuel cell electric vehicles is imminent and other hydrogen applications are increasingly being deployed, ICHS 2017 will focus on the progress in safety of H₂ technologies and infrastructure, as essential means to enable smart H₂ solutions for global energy challenges. Therefore, the conference scope covers the broad range of hydrogen safety topics including Regulations, Codes and Standards, safety in hydrogen infrastructure, safe strategies for the implementation and scaling up of hydrogen technologies and system solutions, hydrogen and hydrogen blends behavior, physical effects, consequence analysis, incidents, accidents and near misses, hydrogen effects on materials and components, safety of energy storage, risk management and fuel cells related safety issues.

The ICHS 2017 will include thematic plenary sessions, topical lectures and parallel oral and poster sessions of contributed papers. The conference seeks to strengthen the near term introduction of hydrogen technologies in the market place.



ORGANIZING COMMITTEE

SCIENTIFIC COMMITTEE

THEMES AND TOPICS



Thomas Jordan, Heinrich Klingenberg, Iñaki Azkarate, Hervé Barthélémy, Marco Carcassi, Thorsten Herbert, Jay Keller, Frank Markert, Akiteru Maruta, Pietro Moretto, Marc Steen, Andrei Tchouvelev.

Marco Carcassi, Thomas Jordan, Iñaki Azkarate, Daniele Baraldi, Herve Barthelemy, Luc Bauwens, Pierre Benard, Gilles Bernard-Michel, Dag Bjerketvedt, Luigi De Angelis, Francesco Dolci, Sergey Dorofeev, Vasco Ferreira, Javier Garcia, Stuart Haworth, Olaf Jedicke, Shoji Kamiya, Jay Keller, Armin Keßler, Alexei Kotchourko, Frank Markert, Akiteru Maruta, Daniele Melideo, Vladimir Molkov, Pietro Moretto, Cosimo Pulito, Ernst-Arndt Reinecke, Ulrich Schmidtchen, Trygve Skjold, Marc Steen, Andrei Tchouvelev, Andrzej Teodoreczyk, Piet Timmers, Alexandros Venetsanos, Franck Verbecke, Karl Verfondern, Changjian Wang, Benno Weinberger, Steven Weiner, Jennifer Wen, Jinyang Zheng.

Behavior of Gaseous and Liquid Hydrogen and hydrogen mixtures

- Release, dispersion
- Ignition and auto-ignition
- Combustion: fire, deflagration, detonation, transitional effects.

Physical effects, consequence analysis

- Thermal, overpressure, missile effects
- Effects on humans and environments
- Incidents, accidents and near misses

Hydrogen effects on materials and components

- Embrittlement
- Permeation/blistering

Risk/safety management

- Hazard identification and analysis
- Risk assessment (cost-benefit analysis, safety perception, acceptance and harm criteria, uncertainties, decision making, human factor)
- Risk-informed safety engineering
- Prevention and Mitigation (active, passive, sensors, safety distances)
- Insurance
- Safety solutions and implementation of H₂ technologies
- “Outside-the-box” safety

Regulations Codes and Standard (RCS)

- Pre-normative research (needs, approaches, incorporation of QRA)
- Post normative experience (case studies)
- Comparison/compatibility with other fuels
- Sensors

THEMES AND TOPICS



Education, training, lessons learned and best practices

- First responders training
- Databases

Safety in H₂ infrastructure

- Production
- Distribution and transport (pipelines, gaseous and liquid)
- Storage
- Handling and use of H₂ Infrastructure

H₂ fueling stations deployment experience

- Safe design
- Indoor/outdoor fueling
- Permitting
- Public acceptance
- Mitigation practices
- Co-location with other fueling options
- Mixed / blended H₂ fueling stations and vehicles

Fuel cells and electrolyzers related safety issues

- Risk Assessment
- Safety of material
- Normative or Pre-normative

Safety in H₂ vehicle /station interface and safety in H₂ vehicles

- On-board storage
- Vehicle operation in tunnels and garages
- Public acceptance
- Material handling and operations in warehouses

H₂ Safety aspects in other applications/industries/technologies

- Chemical plants
- Oil refinery
- Space-aircrafts - unmanned aerial vehicles (drones)
- Nuclear
- Maritime applications e.g., boats, submarines
- Mining industry
- Semiconductor/electronic industries, electrical generators, neutron beams and other fundamental experiments
- Other applications

Safety of energy storage

- H₂ solid-storage materials
- Grid scale storage
- Power-to-gas / power-to-hydrogen



CONTRIBUTED PAPER

Conference attendees who wish to present a paper are required to submit a short abstract (about 100 words). When submitting the abstract/paper, authors can express a preference for presenting their work in an oral session or in the poster session or no preference.

Authors whose abstract has been accepted will be asked to submit a full paper which will be peer-reviewed. The evaluation will be forwarded to the Authors by e-mail. All accepted papers (oral and poster) will be published with exactly the same format in the proceedings of the conference.

ABSTRACT SUBMISSION

Via web page: www.ichs2017.com

KEY DEADLINES

For contributed papers are detailed below

- Abstracts deadline: Extended until January 30, 2017
- Full papers submission: March 31, 2017
- Paper acceptance notification: June 1, 2017
- Submission of papers final versions and payment of conference fees: July 15, 2017
- ICHS Conference: September 11-13, 2017

CONFERENCE LOCATION

Handelskammer, Adolphspl. 1, 20457 Hamburg (Germany)

CONFERENCE LANGUAGE

English

INFORMATION

Contact: Dania Del Corso, via email: ichs@hysafe.org

CONFERENCE WEBSITE

www.ichs2017.com



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on Hydrogen Safety

ICHS STORY

2005
PISA (IT)



2007
S. SEBASTIAN (SP)



2009
AJACCIO (FR)



2011
S. FRANCISCO (USA)



2013
BRUSSELS (BE)



2015
YOKOHAMA (JP)

