

Scientific Programme



13.6.2018

Balling Hall	<i>Contribution</i>	<i>Speaker</i>
14:00 14:20	Welcome & Opening	
14:20 14:40	Fuel cell and hydrogen; a compelling value proposition for zero emission heavy duty transportation	Oben Uluc
14:40 15:00	Structured Financing and the Development of Hydrogen Supply Chains	André Hützli
15:00 15:30	New study program and e-learning tools for education in hydrogen technologies	Robert Steinberger-Wilckens Olaf Jedicke
15:30 16:00	<i>Coffee break</i>	
16:00 16:20	Recent progress and vision of hydrogen technologies in the Czech Republic	Karin Stehlík
16:20 16:40	Challenges in hydrogen mobility	Jiří Hájek
16:40 17:00	Saxony – a model region for large-scale green hydrogen use cases	Lukas Rohleder
17:00 17:20	R&D in hydrogen storage technologies – new program announced by NCBR in Poland	Maciej Misiura
17:20 17:45	Introduction of national hydrogen platforms:	
	Ukrainian Hydrogen Council	Oleksandr Riepkín
	National Hydrogen Center (CNH2), Spain	Félix Garcia-Torres
	Polish Hydrogen and Fuel Cell Association	
18:00 20:30	Poster session with walking dinner + networking	

9th International Conference on Hydrogen technologies
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www.hydrogendays.cz



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14.6.2018

Balling Hall		Contribution	Speaker
9:00	9:20	Low Pt content PEM FC catalysts – from fundamental science to applications	Vladimír Matolín
9:20	9:40	Optimization of hot-press process for PEM Fuel Cells MEA preparation	Jakub Malíš
9:40	10:00	Permeability of gas diffusion layer – its influence on gas flow uniformity in PEM type fuel cell	Monika Drakselová
10:00	10:20	Virtual porous electrode design - a simple approach	Deepjyoti Borah
10:20	10:40	Representative determination of nanoparticle size distribution on gas-diffusion electrodes	Martin Prokop
10:40	11:20	<i>Coffee break</i>	
11:20	11:40	Non-platinum amorphous Fe ₆₀ Co ₂₀ Si ₁₀ B ₁₀ cathode catalyst combined with anion selective binder for alkaline water electrolysis	Martin Ďurovič
11:40	12:00	Catalyst coated membrane for a zero-gap alkaline water electrolyzer	Jaromír Hnát
12:00	12:20	Design of Zero-Gap Alkaline Water Electrolyzer	Kodým Roman
12:20	12:40	Bio-hydrogen Production by Combination of Dark and Photo Fermentation	Shu-Yii WU
12:40	13:00	Lithium-Amide Systems for Hydrogen Storage: cation/anion substitution	Luisa Fernández Albanesi
13:00	14:00	<i>Lunch</i>	

TECHNICAL EXCURSIONS

14:30	18:00	Technical excursions
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CONFERENCE DINNER

19:00	Pivnice Štupartská
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15.6.2018

Balling Hall		Contribution	Speaker
9:00	9:20	A case study of the potential implementation of a Hydrogen Economy in Northern Norway	Mohamad Mustafa
9:20	9:40	HyLAW – a project designed to promote the hydrogen economy in Europe	Ioan Iordache
9:40	10:00	Advanced Control of Hydrogen-Based Microgrids with Hybrid Energy Storage System using Model Predictive Control	Garcia-Torres
10:00	10:20	A clean switch to clean energy - fuel cell hybrids in Stationary applications	Rohit Prasad
10:20	10:40	Hydrogen Use in a Compression Ignition Engine	Ivan Bortel
10:40	11:20	<i>Coffee break</i>	
11:20	11:40	Advances in solid oxide cells in the Institute of Power Engineering – new designs, fabrication techniques and applications	Marek Skrzypkiewicz
11:40	12:00	Synthesis of Ruddlesden-Popper oxides, $\text{La}_{n+1}\text{Ni}_n(1-x)\text{Co}_x\text{O}_{3n+1+\delta}$ ($n=1, 2, 3$, $\delta \times = 0.0, 0.1, 0.2$) and their use as a cathode in the solid oxide fuel cells	Jing-Chie Lin
12:00	12:20	High temperature electrochemical reactors for energy storage	Michal Carda
12:20	12:40	The reformer steam-iron cycle for high purity hydrogen production	Robert Zacharias
12:40	13:00	Possibilities of hydrogen production via thermal plasma	Michal Jeremiáš
13:00	13:15	Student awards & Closing ceremony	
13:15	14:15	<i>Lunch</i>	

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Posters

*Contribution**Author*

Specialized education in fuel cell and hydrogen technologies at University of Chemistry and Technology, Prague.

Martin Paidar

Photocatalytic Hydrogen Evolution on the Hetero-system Polypyrrol/TiO₂ Under Visible Light

Chemseddin Belabed

New application of alkaline water electrolysis

Lukas Polak

The numerical simulation of catalysis using fuel by stream reformer system

Jenn-Kun Kuo

Performance evaluation of proton conducting oxide fuel cell with 1-D modified cathode

Sangho Park

Catalytic nanoparticle synthesis by spark discharge

Tomáš Němec

Large Scale Hydrogen Production and Electricity by High Temperature Nuclear Power Station with Pebble Bed Reactor

Urban Cleve

Hydrogen car model

David Žahour

The influence of mechanical milling parameters and catalyst distribution on thermal decomposition of MgH₂

Tijana Pantić

A clean switch to clean energy - fuel cell hybrids in mobility

Rohit Prasad

Efficiency of on- site hydrogen production from hydrocarbons as compared to electrolysis of water

Mohamed Mustafa

Future European Fuel Cell Technology: Fit for Automatic Manufacturing and Assembly

Martin Biák

Hydrogen Metrology: Hydrogen quality specification for fuel cell vehicles

Andrés Rojo

Porous silicon thin films for electrochemical hydrogen storage

Salwa Merazgal

Thermodynamical and operational aspects of SOEC in co-generation

Karin Stehlík

Structural ordering of mixed-phase fct/fcc FePt nanoparticles with minimal particle size compromise for oxygen reduction reaction

Robin Sandström

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