

Scientific Programme


13.6.2018

Balling Hall	<i>Contribution</i>	<i>Speaker</i>
14:00 14:30	Welcome & Opening	
14:30 14:50	Fuel cell and hydrogen; a compelling value proposition for zero emission heavy duty transportation	Oben Uluc <i>Ballard Power Systems</i>
14:50 15:10	Structured Financing and the Development of Hydrogen Supply Chains	André Hutzli <i>BNP Paribas</i>
15:10 15:40	New study program and e-learning tools for education in hydrogen technologies	Robert Steinberger-Wilckens <i>University of Birmingham</i> Olaf Jedicke <i>Karlsruher Institute of Technology</i>
15:40 16:10	<i>Coffee break</i>	
16:10 16:30	Recent progress and vision of hydrogen technologies in the Czech Republic	Karin Stehlik <i>HYTEP, Research Center Řež</i>
16:30 16:50	Challenges in hydrogen mobility	Jiří Hájek <i>UNIPETROL, UNICRE</i>
16:50 17:10	Saxony – a model region for large-scale green hydrogen use cases	Lukas Rohleder <i>Energy Saxony</i>
17:10 17:30	R&D in hydrogen storage technologies – new program announced by NCBR in Poland	Maciej Martyniuk <i>National Center for Research and Development</i>
17:30 17:55	Introduction of national hydrogen platforms:	
	Ukrainian Hydrogen Council	Oleksandr Riepkín
	National Hydrogen Center (CNH ₂), Spain	Félix Garcia-Torres
	Hydrogen Economy Initiative Serbia	Sandra Kurko
18:00 20:30	Poster session with walking dinner + networking	

9th International Conference on Hydrogen technologies
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Balling Hall		Contribution	Speaker
9:00	9:20	Low Pt content PEM FC catalysts – from fundamental science to applications	Vladimír Matolín <i>Charles University, LEANCAT s.r.o.</i>
9:20	9:40	Optimization of hot-press process for PEM Fuel Cells MEA preparation	Jakub Mališ <i>University of Chemistry and Technology Prague</i>
9:40	10:00	Permeability of gas diffusion layer – its influence on gas flow uniformity in PEM type fuel cell	Monika Drakselová <i>University of Chemistry and Technology Prague</i>
10:00	10:20	Virtual porous electrode design - a simple approach	Deepjyoti Borah <i>Forschungszentrum Juelich GmbH</i>
10:20	10:40	Representative determination of nanoparticle size distribution on gas-diffusion electrodes	Martin Prokop <i>University of Chemistry and Technology Prague</i>
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 <i>University of Chemistry and Technology Prague</i>
11:40	12:00	Catalyst coated membrane for a zero-gap alkaline water electrolyzer	Jaromír Hnát <i>University of Chemistry and Technology Prague</i>
12:00	12:20	Design of Zero-Gap Alkaline Water Electrolyzer	Roman Kodým <i>University of Chemistry and Technology Prague</i>
12:20	12:40	Bio-hydrogen Production by Combination of Dark and Photo Fermentation	Shu-Yii WU <i>Feng Chia University, Taiwan</i>
12:40	13:00	Lithium-Amide Systems for Hydrogen Storage: cation/anion substitution	Luisa Fernández Albanesi <i>Centro Atómico Bariloche</i>
13:00	14:00	<i>Lunch</i>	

TECHNICAL EXCURSIONS

14:30 18:00 Technical excursions

CONFERENCE DINNER

19:00 Pivnice Štupartská

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15.6.2018

Balling Hall	<i>Contribution</i>	<i>Speaker</i>
9:00 9:20	A case study of the potential implementation of a Hydrogen Economy in Northern Norway	Mohamad Mustafa <i>UiT The Arctic University of Norway</i>
9:20 9:40	Future European Fuel Cell Technology: Fit for Automatic Manufacturing and Assembly	Martin Biák <i>Chemnitz University of Technology</i>
9:40 10:00	Advanced Control of Hydrogen-Based Microgrids with Hybrid Energy Storage System using Model Predictive Control	Felix Garcia-Torres <i>National Hydrogen Center CNH₂</i>
10:00 10:20	A clean switch to clean energy - fuel cell hybrids in Stationary applications	Rohit Prasad <i>Proton Motor Fuel Cell GmbH</i>
10:20 10:40	Hydrogen Use in a Compression Ignition Engine	Ivan Bortel <i>Czech Technical University in Prague</i>
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 <i>Institute of Power Engineering</i>
11:40 12:00	Synthesis of Ruddlesden-Popper oxides, $\text{La}_{n+1}\text{Ni}_{n(1-x)}\text{Co}_x\text{O}_{3n+1+\delta}$ ($n=1, 2, 3$ $\delta x = 0.0, 0.1, 0.2$) and their use as a cathode in the solid oxide fuel cells	Jing-Chie Lin <i>National Central University</i>
12:00 12:20	High temperature electrochemical reactors for energy storage	Michal Carda <i>University of Chemistry and Technology Prague</i>
12:20 12:40	The reformer steam-iron cycle for high purity hydrogen production	Robert Zacharias <i>Graz University of Technology</i>
12:40 13:00	Possibilities of hydrogen production via thermal plasma	Michal Jeremiáš <i>Institute of Plasma Physics of the Czech Academy of Sciences</i>
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
University of Chemistry and Technology Prague

Pre-normative Research for Safe Use of Liquid Hydrogen

Olaf Jedicke
Karlsruher Institute of Technology

NET-Tools, Digital Platform to provide e-Learning and e-Science related to Fuel Cells and Hydrogen Technology for Training and Education

Olaf Jedicke
Karlsruher Institute of Technology

New application of alkaline water electrolysis

Lukáš Polák
ÚJV Řež, a. s.

The numerical simulation of catalysis using fuel by steam reformer system

Jenn-Kun Kuo
National University of Tainan

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

Sangho Park
Hanyang University

Catalytic nanoparticle synthesis by spark discharge

Tomáš Němec
Institute of Thermomechanics of the CAS, v. v. i.

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

Urban Cleve
NUHTEC

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

Mohamed Mustafa
UiT The Arctic University of Norway

Thermodynamical and operational aspects of SOEC in co-generation

Karin Stehlík
Research Center Řež

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

Robin Sandström
Umea Universit t Schweden

Hydrogen Metrology: Hydrogen quality specification for fuel cell vehicles

Andr s Rojo
Centro Espa ol de Metrolog a

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

Martin Bi k
Chemnitz University of Technology

Hydrogen car model

David  ahour
NVIA S z.s.

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

Tijana Pantić
Vin a Institute of Nuclear Sciences

Some aspects of hydrogen utilization for supplying 10kW PEMFC stack designed as part of hybrid power sources for motorglider

Andrzej Ra niak
AGH University of Science and Technology

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