HYDROGEN DAYS 2014

FINAL PROGRAMME

Wednesday, April 2

11:00 - 14:00		**On site registration**
14:00 - 14:15		**Opening Ceremony**
Chairman:		**Karel Bouzek**
14:15 - 15:15	**PL 01**	R. Steinberger-Wilckens **Fuel cells and hydrogen – What can they offer for our energy future?**
15:15 - 16:15	**PL 02**	B. De Colvenaer **The Fuel Cells and Hydrogen Joint Undertaking: Towards the deployment of fuel cells and hydrogen**
16:15 - 16:30	**PL 03**	M. Reijalt **Examples of national/local network building around FCEV and HRS roll out in the EU**
16:30 - 16:50		**Coffee break**
Chairman:		**Robert Steinberger-Wilckens**
16:50 - 17:50	**PL 04**	M.E.H. Bergmann **German energy revolution – Recent development and major challenges**
17:50 - 18:30	**KL 01**	T. von Unwerth **Towards sustainable mobility - Why hydrogen is the most promising option**

19:00 - 21:00

Poster Session with Walking Dinner

P 01 M. Drakselová, R. Kodým, S. Sunde, K. Bouzek
Mathematical modelling – powerful tool for understanding of degradation mechanisms in PEM type fuel cell

P 02 T. Bystroň, M. Prokop, K. Bouzek
Phosphorus electrochemistry on Pt electrode: a key to better understanding of high temperature PEM fuel cells containing H_3PO_4

P 03 M. Prokop, M. Paidar, T. Bystroň, K. Bouzek
Preparation of Pt based catalytic layer on the rotating electrode surface for catalyst characterisation in H_3PO_4 at elevated temperatures

P 04 J. Mališ, M. Paidar, K. Bouzek
Stability of Nafion® membrane at elevated temperature and pressure

P 05 K. Vazač, M. Paidar, M. Roubalík, K. Bouzek
Alkaline water electrolysis with cation-selective membrane

P 06 J. Čermáková, A. Doucek, P. Hájek
Concept of zero-gap alkaline water electrolysis

P 07 D. Chanda, J Hnát, M Paidar, K Bouzek
Synthesis and characterization of $NiFe_2O_4$ electrocatalyst and preparation of MEA (membrane electrode assembly) using different binders in gas diffusion electrodes for the hydrogen evolution in alkaline water electrolysis

P 08 L. Polák, A. Doucek, J. Čermáková
Hydrogen production via HTSE based on electrolyte-supported solid oxide electrolysis cells

P 09 M. Brunclíková, M. Zlámal, P. Kšírová, Š. Kment, Z. Hubička, J. Krýsa
Thin films of WO_3 prepared by magnetron sputtering deposition

P 10 V. Martin-Gil, V. Fíla
Membrane separation of hydrogen

Thursday, April 3

Chairman: **Jan Macek**

9:00 - 9:40	**KL 02**	F. Lapicque **PEM fuel cells and electrolysers: potential and routes for improvement of the technology in France**
9:40 - 10:00	**L 01**	D. Minařík **The Laboratory of Hydrogen Technology: A new key part of Technological centre for research of renewable sources and accumulation of electric power**
10:00 – 10:20	**L 02**	K. Bouzek, M. Paidar, R. Kodým, J. Hnát **Fifteen years of research and development in the field of hydrogen technologies at the Institute of Chemical Technology Prague**
10:20 - 10:40	**L 03**	E. Haner, A. Talke **The history of the Fuel Cell drive Technology at Daimler AG**
10:40 - 11:00	**L 04**	A. Doucek, J. Čermáková, L. Polák **Hydrogen technologies for energy storage applications**
11:00 - 11:20	**Coffee break**	

Chairman: **Stylianos Neophytides**

11:20 - 12:00	**KL 03**	M.A. Rodrigo, J. Lobato, P. Cañizares, F.J. Pinar, H. Zamora and D. Úbeda **Composite membranes for high temperature PEM fuel cells: from single cells to stack**
12:00 - 12:20	**L 05**	M. Paidar, A. Giurg, P. Mazúr, K. Bouzek **Influence of PBI membrane type and doping time on the high temperature PEM fuel cell performance**
12:20 - 12:40	**L 06**	V. Matolín, R. Fiala, M. Václavů, J. Lavková, I. Matolínová **Low Pt thin film catalysts for PEM fuel cell technology**
12:40 - 13:00	**L 07**	F. Maršík, P. Novotný **Relation between activation losses and membrane efficiency in the fuel cell operation**
13:00 - 14:20	**Lunch**	
14:40 - 18:00	**Excursions**	
19:30 - 22:00	**Conference Dinner**	

Friday, April 4

Chairman: **Henry Bergmann**

9:00 - 9:20	**L 08**	J. Polonský, M. Paidar, K. Bouzek **Optimisation of an anode for the PEM water electrolysers**
9:20 - 9:40	**L 09**	J. Hnát, J. Schauer, J. Žitka, M. Paidar, K. Bouzek **Alkaline water electrolysis with solid polymer electrolyte**
9:40 - 10:00	**L 10**	K. Stehlík, F. Wertz, L. Karasková-Nenadálová, J. Vít, K. Vonková **Hydrogen production from lignite liquefaction applying nuclear co-generation**
10:00 - 10:20	**L 11**	M. Jeremiáš, M. Pohořelý, K. Svoboda, S. Skoblia, Z. Beňo, P. Kameníková, T. Durda **Fluidized bed gasification of biomass: the yield of hydrogen under different operating conditions**
10:20 - 10:40	**L 12**	P. Hájek **The effect of power cycles archictectures at hydrogen production plants**
10:40 - 11:00	**L 13**	M. Morte **Power flow problem in a smart grid with hydrogen storage systems**
11:00 - 11:20	**Coffee break**	

Chairman: **Aleš Doucek**

11:20 - 12:00	**KL 04**	M. Athanasiou, D. K. Niakolas, S. G. Neophytides **Carbon and sulfur tolerant anodes for SOFCs**
12:00 - 12:20	**L 14**	F. Karas, M. Paidar, K. Bouzek **Solid oxide steam electrolysis – activities recently going on at ICT Prague**
12:20 - 12:40	**L 15**	R. Kodým, F. Karas, M. Paidar, K. Bouzek **Development of mathematical modelling tool for analysis and optimization of the high temperature solid oxide steam electrolysis process**
12:40 - 13:00	**Student Awards Presentation and Closing Ceemony**	
13:00 - 14:20	**Lunch**	