

3rd Hydrogen & Fuel Cells Conference 2015

Day 1 - Tuesday 17th November

16.00 - 17.00 Registration

17.00 - 17.20 Welcome & Chairs Introduction

Session 1 - Catalysis Session Chair: Jens Oluf Jensen

17.20 - 18.00 Gregory Jerkiewicz Platinum Electrochemistry and Electrocatalysis: Unravelling the Origins of Its Unique Behaviour

18.00 - 18.30 Sergio Miguel Durón Torres The Mexican Hydrogen Society / Mixed Oxides as Catalyst-Supports for Oxygen Evolution Reaction

18.30 - 18:45 Shouzhong Zou Concave PtNi Nano-Octahedra as High Performance Catalysts for Oxygen Reduction Reaction

18.45 - 19.15 Shangfeng Du Direct Catalyst Electrodes Based on PtPd Nanodendrites for PEFC Applications

19.15 - 19:30 Sasan Ebrahimi Polymer Electrolyte Membrane Fuel Cell (PEMFC) Power Density Optimization Based on Using Graded Catalyst Layer (CL)

19.30 Free Time and Group Dinner

Day 2 – Wednesday 18th November

Session 2 – Membranes & Characterisations Session Chair: Odne Burheim

08.20 - 09.00 Steven Holdcroft Advances in Polyaromatic Membranes/Ionomers for PEM and AEM fuel cells

09.00 - 09.30 Karen Swider-Lyons Challenges in the Accurate Measurement of Oxygen Reduction Electrocatalyst Activity in RDE and CCMs

09.30 - 09.45 Torsten Berning Employing Hot Wire Anemometry to Directly Measure the Water Balance in Proton Exchange Membrane Fuel Cell

09.45 - 10.00 Vidal Bharath Characterisation of Thin Film Alkaline Anion Exchange Membranes for Fuel Cells Using a Quartz Crystal Microbalance and Crystal Admittance Spectroscopy

10.00 - 10.15 Patrick Nonjola Electrocatalysts and Anion Exchange Composite Membranes for Alcohol Alkaline Fuel Cells

10.15 - 10.45 Coffee Break


Day 2 - Wednesday 18th November continued
Session 3 - Techniques **Session Chair: Gregory Jerkiewicz**

10.45 - 11.15	Odne Burheim	Thermal Conductivity of Different PEMFC Regions and Impacts on Numerical Modelling.
11.15 - 11.30	Erik Engebretsen	Electro-thermal Impedance Spectroscopy Applied to an Open-Cathode Polymer Electrolyte Fuel Cell
11.30 – 11.45	Katerina Horakova	The Presence of H on the Zr(0001)-1x1 Surface Analysed with Photoemission and STM.
11.45 - 12.15	Esteban Durán Herrera	Preliminary Evaluation of Co, Cu, Ru and Ni Dye-Sensitized-TiO ₂ Substrates as Photocatalysts for Water-Splitting Hydrogen Production

12.15 - 16.20 **Lunch & Free Time**
Session 4 - Nanomaterials **Session Chair: Christophe Coutanceau**

16.20 - 17.00	Federico Rosei	Multifunctional Materials for Electronics and Photonics
17.00 - 17.15	Concetta Ruocco	Bimetallic Catalysts for Ethanol Steam Reforming: Effect of Operative Conditions and Bioethanol Impurities
17.15 - 17.45	Jens Oluf Jensen	Non-Noble Oxygen Reduction Catalysts by Means of Encapsulated Iron Carbide
17.45 - 18.00	Muhammad Imran Din	Reverse Microemulsion Method for Fabrication of Nano-Nickel electrode: Electrolytic oxidation of Ethanol in Direct Ethanol Fuel Cell
18.00 - 18.15	Concetta Ruocco	Oxidative Steam Reforming of Ethanol with Pt-Ni/CeO ₂ -SiO ₂ Catalyst

Session 5 - Poster Session

18.15 - 20.00 Poster Session & Refreshments

20.00 **Free Time & Dinner**


Day 3 – Thursday 19th November
Session 6 - Systems Session Chair: Chris Reid

08.20 - 09.00	Vladimir Molkov	Hydrogen Safety Engineering For Indoor Systems
09.00 - 09.30	John Jostins	Hydrogen and Fuel Cells in the Context of Closed Loop Mobility
09.30 - 09.45	Joelle Penniston	Effect of Non-Regulated pH on the Dynamics of Dark Fermentative Biohydrogen Production with Suspended and Immobilized Cell Culture Systems
09.45 - 10.00	Antonio Ricca	Process Intensification in Methane Steam Reforming for H ₂ Production: An Innovative Catalytic Configuration
10.00 - 10.15	Ki Bong Lee	Sorption-enhanced Reaction for High-purity Hydrogen Production

10.15 - 10.45 Coffee Break & Group Photo
Session 7 - Applications Session Chair: John Jostins

10.45 - 11.15	Brant Peppley	Polymer Electrolyte Electrolyser Versus Solid Oxide Electrolyser Technology: A Comparison of How to Make Hydrogen
11.15 - 11.45	Chris Reid	Disrupting The Business Case Around Solid State Hydrogen Storage
11.45 - 12.00	Quentin Meyer	Effect of GDL Structure on the Performance of Air-Cooled, Open-Cathode Fuel Cells Using Hydro-Electro-Thermal Analysis.
12.00 - 12.30	Dmitriy Makarov	Fire Resistance of Onboard Hydrogen Storage: Recent Developments in Thermal Protection
12.30 - 12.45	Marco Rodriguez	Hybridization of PEM Fuel Cell using Genetic Optimization

12.45 - 17.00 Lunch & Free Time
Session 8 - SOFC/SOE/PEMWE Session Chair: Shangfeng Du

17.00 - 17.40	Søren Linderoth	SOFCs on the Move From High to Low Temperature Operation
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17.40 - 18.00 Coffee Break

Day 3 – Thursday 19th November

Session 9 - Fuel Cell Materials Session Chair: Kamiel Gabriel

18.00 - 18:15	Sadegh Hasanpour	Determination of Permeability of Gas Diffusion Layer of Proton Exchange Membrane Fuel Cells
18.15 - 18.30	Sadegh Hasanpour	Electrical and Thermal Bulk Resistance of Non-Uniformly Compressed Gas Diffusion Layer
18.30 - 19:00	Walter Merida	TBC
20.00	Farewell Dinner	

Day 4 – Friday 20th November

Session 10 – Hydrogen Session Chair : Søren Linderoth

08.20 - 09.00	Christophe Coutanceau	Electrochemical Conversion of Biomass for Clean Hydrogen Production
09.00 - 09.30	Kamiel Gabriel	A Summary of Canada's Program on Hydrogen Production using the Thermo-chemical Cu-Cl Cycle
09.30 - 09.45	Harby Alexander Martinez Rodriguez	Electrical And Structure Response of The Sample La _{0.5} Ca _{0.5} Fe _{1-x} Mn _x O ₃ With Potential Applications In Solid Oxide Fuel Cells SOFC
09.45 - 10.00	Antonio Ricca	H ₂ Production in a Compact Thermal Integrated Fuel Processor Based on Auto-Thermal Reforming
10.00 - 10.15	Thomas Jordan	Hydrogen Safety – Lessons learnt from Nuclear Safety
10.15 - 10.30	Chairs Closing Comments	
10.30 - 11.00	Coffee Break	
12.00	Lunch & Departures	

Please Note: This programme is subject to change.

The programme will be updated regularly as information is received and will always display the most current version on the website. We strongly recommend periodically reviewing this document.