

Fuel Cell & Hydrogen 2013

From materials research to ramping up
production



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- *Hydrogen production and storage*
- *Ramping up fuel cell production*
- *Novel fuel cell concepts*
- *Fuel cell manufacturing*
- *Material development*
- *Hydrogen transport*

Students: 1 Day - £60 (ex/VAT)
2 Days - £90 (ex/VAT)

Delegates: 1 Day - £150 (ex/VAT)
2 Days - £250 (ex/VAT)

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Preliminary Programme Speakers

Dr Bushra Al-Duri , University of Birmingham
Dr P.V. Aravind , Technology University Delft
Cynthia Attingre , Imperial College
Dr David Book , University of Birmingham
Dr Simon Bourne , ITM Power
Dr Tao Chen , NIMTE
Dr Kevin Cooke , Miba Coating Group: Teer Coating Ltd
Dr Graham Cooley , ITM Power
Dr Paul Dodds , University of College London
Dr Karl Foeger , Ceramic Fuel Cells Ltd
Emma Guthrie , Air Products
Dr David Hart , E4Tech
Dennis Hayter , Intelligent Energy Ltd
Dr Stuart Hillmansen , University of Birmingham
David Hurren , Air Liquide UK
Professor John Jostins , Microcab
Dr Jung-Sik Kim , Loughborough University
Dr Joachim Kroemer , BORIT
Dr Nieves Lapeña , Boeing
Ian Marr , Airbus
Jon McKenchie , University of Nottingham
Dr Stephen McPhail , ENEA
Professor Vladimir Molkov , University of Ulster
David Parra , University of Nottingham
Professor Bernard Porter , Microcab
Dr Neil Rees , University of Birmingham
Raymond Schmid , Hydrogenics
Professor Martin Schroder , University of Nottingham
Eleni Seriatou , HyER
Professor Peter Slater , University of Birmingham
Joe Stevenson , Johnson Matthey
Dr Rowland Travis , Rolls-Royce Fuel Cell Systems
Gareth Thomas , University of Birmingham
Martin Thomas , AFC Energy
Geoffrey Ville , McPhy Energy
Professor Gavin Walker , University of Nottingham
Norman Wijker , Airbus
Professor Xiao-Ping Zhang , University of Birmingham

Why you should attend

This conference is significant in bringing together UK and EU projects on Hydrogen and Fuel Cells as 2014 approaches with the imminent prospect of launching applications in automotive, building and portable sectors of the energy market. In addition the conference looks outwards towards Asia where urgent demands for renewables, energy storage, clean transport and more efficient generation are appearing. Parallel sessions are in place to consider the UK infrastructure in academic research on materials and processes, the requirements of the manufacturing industries and the student training programmes now underway across the EU. The total value of these efforts is approaching 2bn euro.

The key priority is to consider the 2015 emergence of Fuel Cell Hydrogen Vehicles (FCHVs) from many global manufacturers (Nissan, Mazda, Honda to name a few). The way in which these fleets are rolled out will have a strong influence on the public perception of FCHV technology and on the future prospect for commercial success.

At the same time, refuelling infrastructure expansion needs to be addressed to ensure that sufficient hydrogen dispensers are in position in the UK, Germany, Scandinavia etc as consumers buy into the new efficient, clean technology. Linkages between the key companies Air Products, Linde and Air Liquide will be outlined on the first day of the conference.

Stationary fuel cell installations in buildings is the second most important market in which larger numbers of FCH generators will be demonstrated by 2015, especially in domestic houses where distributed generation by local CHP units will be described. Running on natural gas has been the key objective, with power to heat ratios of up to 60% achieved in certain products, ideal for the low-heat housing of the future.

Portable power for phone-chargers, leisure activities and back-up devices is the third area to be considered on the opening day of the conference. Fuels such as methanol, propane and hydrides will be discussed and contrasted.

After lunch, the programme splits into parallel sessions to address in detail the fundamental needs of the FCH community:- materials development, green hydrogen in transport, and hydrogen production, storage and delivery. Academic results will be presented in a poster session comprising around 50 papers from PhD projects.

The second day emphasises the novel fuel cell and hydrogen concepts which are progressing internationally. The objective is to look forward to the 2020 vision programme running from 2014 to 2020 in the EU, comparing this to comparable long-term actions in the USA, China, Korea and Japan. In addition, the PhD student training programmes across the EU will be linked together with the industry contributions to future development.

The conclusion of day 2 will be the overview of the current position of FCH technologies, the approach to the 2015 vehicle emergence, the growth of fuel cell CHP and portable power and the prospect of further innovations during the next phases of RD&D.

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