

FUEL CELLS FOR A SUSTAINABLE WORLD

Oral Presentations

Tuesday, 4 July 2006 - 09:00 – 10:30

Joint Session 1

Words of Welcome

09:00

Opening Remarks

Ulf Bossel, Conference Organizer

European Fuel Cell Forum, Oberrohrdorf / Switzerland

09:05

Welcome to Switzerland

Walter Steinmann, Director

Swiss Office of Energy, Bern / Switzerland

09:15

Welcome to

FUEL CELLS FOR A SUSTAINABLE WORLD

Lars Sjunnesson, Chairman

E.ON Nordic AB, Malmö / Sweden

09:20

Welcome to the

7th EUROPEAN SOFC FORUM

John A. Kilner, Chairman

Imperial College London / United Kingdom

09:30

Key Note Address

Sustainable Energy Solutions Implemented in the Lucerne Region

Rudolf Baumann-Hauser, Energy Program Manager

Canton of Lucerne / Switzerland

Tuesday, 4 July 2006 - 11:00 – 12:30

Joint Session 2

Global Fuel Cell Surveys

Chairman: Lars Sjunnesson

11:00

European Fuel Cell Technology

Robert Steinberger-Wilckens

Forschungszentrum Jülich / Germany

11:30

Status of National Project for SOFC Development in Japan

Takashi Ujiie

NEDO, Kawasaki / Japan

12:00

U.S. DOE Fossil Energy Fuel Cell Program

Wayne A. Surdoval

US DOE, Pittsburgh, PA / USA

Tuesday, 4 July 2006 - 14:00 – 15:30

Session 3A

Selected PEFC Solutions

Portable Generators

Chairman: Detlef Stolten

14:00

Portable Fuel Cells Using Propane and LPG

Stephen Voller

Voller Energy Ltd., Basingstoke / United Kingdom

14:30

Mobile and Portable Power Solutions: Latest DMFC Products and Applications

Oliver Freitag

Smart Fuel Cell AG, Brunnthal-Nord / Germany

15:00

Fuel Cells for Portable Electronics: A Survey

Christopher Hebling

Fraunhofer Institute for Solar Energy Systems, Freiburg / Germany

Tuesday, 4 July 2006 - 16:00 – 17:30

Joint Session 4A

Stationary and Mobile Power Generation

Chairman: Detlef Stolten

16:00

First Experience with Residential PEFC Cogenerators

Guido Gummert and Thomas Winkelmann

European Fuel Cell GmbH, Hamburg / Germany

16:30

Development of Vehicular Fuel Cell Systems

André Martin und Jochen Straub

Nucellsys GmbH, Kirchheim-Nabern / Germany

17:00

Fuel Cell Development for Automobile Application at Honda

Thomas Brachmann

Honda R&D Europe (Deutschland) GmbH, Offenbach am Main / Germany

Wednesday, 5 July 2006 - 09:00 – 10:30

Session 5A

SOFC Small Generators

Chairman: Philippe Stevens

09:00

Adaptive Materials and Portable SOFCs: From One Cell to 50 Systems

Aaron Crumm

Adaptive Materials Inc., Ann Arbor, MI / USA

09:30

Portable SOFCs under 300 Watts Operating on Hydrocarbon Fuels

Jerry L. Martin¹, Christine Martin¹ and Robert J. Kee²

¹Mesosopic Devices, Broomfield, CO / USA

²Colorado School of Mines, Golden, CO / USA

10:00

Small SOFC Products of HTceramix: The Lilith Project

Raphael Ihringer, Emily Thorn and Olivier Bucheli

HTceramix, Yverdon / Switzerland

Wednesday, 5 July 2006 - 11:00 – 12:30

Session 6A

SOFC Residential Cogeneration

Chairman: Philippe Stevens

11:00

The Rebirth of the Hexis

Alexander Schuler and Volker Nerlich

Hexis AG, Winterthur / Switzerland

11:30

Ceramic Fuel Cells Ltd: Residential Micro-CHP System Demonstrations

Karl Föger and Richard Payne

Ceramic Fuel Cells Limited, Noble Park, Victoria / Australia

12:00

Installation and Operation of the New Siemens 5 kW SOFC Cogenerator

Keith Spitznagel and John Lidderdale

LoganEnergy Corp., Roswell, GA / USA

Wednesday, 5 July 2006 - 14:00 – 15:30

Session 7A

SOFC Stationary Systems 1

Chairman: Subhash Singhal

14:00

30,000 hours of operation at three different locations in three countries

Operation of the Siemens Solid Oxide Fuel Cell Generator CHP100 in an Industrial Environment

Gianmichele Orsello¹, Giovanni Disegna¹, Kevin Litzinger², Richard Basel², Michele Cali³ and Massimo Santrelli³

¹Gas Turbine Technologies (GTT), Torino / Italy

²Siemens SFC, Pittsburgh, PA / USA

³Politecnico di Torino, Torino / Italy

14:30

Development of a 1MW SOFC at Rolls-Royce Fuel Cell Systems

Gerry D. Agnew, Robert Collins and Rowland P. Travis

Rolls-Royce Fuel Cell Systems Ltd., Loughborough / United Kingdom

15:00

SOFC System Integration for CHP Application

Erkko Fontell

Wärtsilä Corporation, Espoo / Finland

Wednesday, 5 July 2006 - 16:00 – 17:30

Session 8A

SOFC Stationary Systems 2

Chairman: Subhash Singhal

16:00

Bringing Siemens SOFC Products to Market - an Update

Thomas Flower

Siemens Power Generation Inc., Pittsburgh, PA / USA

16:30

ZTEK on-site Hydrogen / Electric Hybrid SOFC Technology

Michael Hsu

Ztek Corporation, Woburn, MA / USA

17:00

SOFC Stack Development at Staxera – Update and Outlook

Christian Wunderlich

Staxera GmbH, Dresden / Germany

Thursday, 6 July 2006 - 09:00 – 10:30

Session 9A

Topic of the day:

MCFC Technology

Chairman: Wayne Surdoval

09:00

Direct FuelCell® (DFC®) Products Commercialization Progress: Market Dynamics Continue to Accelerate for Large Stationary Fuel Cells

Dan Brdar, Steven Eschbach and Mohammad Farooque

FuelCell Energy, Inc., Danbury, CT / USA

09:30

Status and Future Perspectives of MCFC Fuel Cell Systems from MTU CFC Solutions

Torsten Bardewyck

MTU CFC Solutions GmbH, Munich / Germany

10:00

MCFC Development at Ansaldo

Bartolomeo Marcenaro and Arturo Torazza

Ansaldo Fuel Cells SpA, Genova / Italy

Thursday, 6 July 2006 - 11:00 – 12:30

Session 10A

MCFC Reports on Power Systems 1

Chairman: Wayne Surdoval

11:00

Current Status and Perspectives of MCFC Development in Korea

Joong-Hwan Jun¹ and Hee-Chun Lim²

¹Research Institute of Industrial Science and Technology (RIST), Pohang / Korea

²Korea Electric Power Research Institute, Deajeon / Korea

11:30

Status of MCFC at CRIEPI and in Japan

Takao Watanabe

CRIEPI, Yokosuka / Japan

12:00

Two MCFC-HotModules in Hospital Service: Experience with Pilot Installations at the Rhön-Klinikum AG

Martin Scherer

Rhön-Klinikum AG, Neustadt-Saale / Germany

Thursday, 6 July 2006 - 14:00 – 15:30

Session 11A

MCFC Reports on Power Systems 2

Chairman: Mark Williams

14:00

The HotModule MCFC in Ahlen: Operational Experience with a High-Temperature Fuel Cell Run on Sewage Gas

Jörg Heinen, Horst Mertikat and Frank Buschsiewecke

RWE Holding, Essen / Germany

14:30

Direct Fuel Cells Operating on Biogas

Tony Leo and Ben Toby

FuelCell Energy, Inc., Danbury, CT / USA

15:00

Two MCFC Cogen Units for Natural Gas and Methanol

Holger Grubel, Martin Pokojski and Oliver Weinmann

Vattenfall Europe AG, Berlin / Germany

Thursday, 6 July 2006 - 16:00 – 16:30

Session 12A

PAFC Revisited

Chairman: Mark Williams

16:00

Phosphoric Acid PC-25 and Natural Gas

Stephan Renz

Beratung Thoma & Renz, Basel / Switzerland

16:30

PAFC Cogen Systems: Field Experience with Natural and Digester Gas

Knut Stahl

Technische Beratung Energie GmbH, Duisburg / Germany

17:00

Current Applications and Future Prospects for Stationary Phosphoric Acid Fuel Cell Power Plants

Francis R. Preli

UTC Power, South Windsor, CT / USA

Friday, 7 July 2006 - 09:00 – 10:30

Joint Session 13

Topic of the day:

Sustainable Fuels for Fuel Cells 1

Chairman: Lars Sjunnesson

09:00

Biomethane from Organic Residues

Claudius da Costa Gomez

Fachverband Biogas e.V., Freising / Germany

09:30

Methanol from Wood and Waste

Eckhard Dinjus, Edmund Henrich and Nicolaus Dahmen

Forschungszentrum Karlsruhe, Karlsruhe / Germany

10:00

Ethanol from Biomass

Pierre Schaller

Alcosuisse, Bern / Switzerland

Friday, 7 July 2006 - 11:00 – 12:30

Joint Session 14

Sustainable Fuels for Fuel Cells 2

11:00

Processing of Biofuels for Fuel Cells

John Bøgild Hansen

Haldor Topsoe, Lyngby / Denmark

12:00

Christian Friedrich Schoenbein Awards

Closing Ceremony