

# Lucerne FUEL CELL FORUM 2004

28 June – 2 July 2004, Lucerne / Switzerland

Conference featuring fuel cell products and applications:

## THE FUEL CELL WORLD 2004

### Session Schedule Overview

Day	Time	"A"	"B"	"C"
<b>Monday June 28</b>	10:00 -17:00	Tutorial		
	14:00 -19:00	Poster Pin-up		
	16:00 -19:00	Registration		
	18:00 -19:00	Welcome Reception		
		<b>THE FUEL CELL WORLD</b>	<b>6th ESOFCF</b>	<b>6th ESOFCF</b>
<b>Tuesday June 29</b>	09:00	A01 Joint Session Opening Session	B01 = A01	C01 = A01
	11:00	A02 Fuel Cells and Economy	B02	C02
	14:00	A03 Sustainable Fuels for Fuel Cells 1	B03	C03
	16:00	A04 Sustainable Fuels for Fuel Cells 1	B04	C04
<b>Wednesday June 30</b>	09:00	A05 Portable Fuel Cells	B05	C05
	11:00	A06 Fuel Cells and Vehicles	B06	C06
	14:00	A07 Electrolyzers and Education	B07	C07
	16:00	A08 Miscellaneous Topics	B08 Posters	
<b>Thursday July 1</b>	09:00	A09 Joint Session Residential Fuel Cell Co-Generation	B09 = A09	C09 = A09
	11:00	A10 Stationary Fuel Cell Power Systems	B10	C10
	14:00	A11 Close-to-Market Fuel Cells 1	B11	C11
		A12 Close-to-Market Fuel Cells 2	B12	C12
<b>Friday July 2</b>	09:00	A13 Fuel Cell Peripherals	B13	C13
	11:00	A14 Joint Session Moving towards Sustainability	B14 = A14	C14 = A14

# THE FUEL CELL WORLD 2004

***Tuesday, 29 June 2004***

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**Session A01                      09:00 - 10:30**

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## Opening Session

### Words of Welcome

#### Opening Remarks

***Ulf Bossel***, European Fuel Cell Forum  
Oberrohrdorf / Switzerland

#### Welcome to Lucerne

***Ruedi Meier***, City Council, Director of Social Affairs  
Lucerne / Switzerland

#### Welcome to Switzerland

***Dieter Imboden***, Professor for Environmental Physics  
ETH Zürich / Switzerland

#### Welcome to THE FUEL CELL WORLD

***Marcus Nurdin***, Managing Director, World Fuel Cell Council,  
Frankfurt / Germany

#### Welcome to the 6th EUROPEAN SOFC FORUM

***Mogens Mogensen***, Risø, Roskilde / Denmark

## Key Note Address

### Cornerstones of a Sustainable Energy Future

***Rudolf Rechsteiner***, Member of the Swiss Parliament  
Economist and Lecturer at Basel University / Switzerland

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**Session A02                      11:00 - 12:30**

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## Fuel Cells and Economy

***Chairman: Marcus Nurdin***

### Fuel Cells in the Energy Business – a View from E.ON Energy

Andreas Willeke  
E.ON. Energie AG, München / Germany

### The Economic Good Sense of Clean Power

Mark Kenber  
WWF Climate Change Programme, Brighton / United Kingdom

### Finance and the European Fuel Cell Industry

Phil Doran  
Core Technology Ventures LLP, Frankfurt / Germany

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**Session A03****14:00 - 15:30**

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## **Sustainable Fuels for Fuel Cells 1**

*Chairman: Alexander Wokaun*

### **Sustainable Fuels for a Sustainable Future**

Manfred Fishedick

Wuppertal Institut, Wuppertal / Germany

### **Kompogas: The World's Most Sustainable Fuel**

Arthur Wellinger

Agentur für erneuerbare Energien und Energieeffizienz

Zürich / Switzerland

### **Sustainable Gas Enters the European Gas Distribution System**

Owe Jönsson

Swedish Gas Center, Malmö / Sweden

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**Session A04****16:00 - 17:30**

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## **Sustainable Fuels for Fuel Cells 2**

*Chairman: Alexander Wokaun*

### **Linking Wood Gasification to Fuel Cells**

Samuel Stucki

Paul Scherrer Institut, Villigen / Switzerland

### **Formulating Liquid Hydrocarbons for Fuel Cells**

Kevin Kendall

University of Birmingham, Birmingham / United Kingdom

### **Compressed Air: The Most Sustainable Energy Carrier for Commuting Vehicles**

Guy Negre and Cyril Negre

MDI Enterprise SA, Carros / France

**Wednesday, 30 June 2004**

## **Fuel Cells for People**

*Chairman of the Day: Christopher Hebling*

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**Session A05**                      **09:00 - 10:30**

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### **Portable Fuel Cells**

#### **Portable Direct Methanol Fuel Cell Power Units**

Manfred Stefener

Smart Fuel Cells AG, Brunenthal-Nord / Germany

#### **Power from Portable PEFC Generators**

Stephen Voller

Voller Energy Limited, Basingstoke / United Kingdom

#### **Prospects for New Mobility with Fuel Cells**

Stefan Schulte

Masterflex AG, Herten / Germany

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**Session A06**                      **11:00 - 12:30**

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### **Fuel Cells and Vehicles**

#### **A Fuel Cell Hybrid Electric Vehicle for two Passengers**

Michael Höckel, Martin Ruge, Stefan Zürcher, Philipp Lüchinger, Thomas Lüthi and Bernhard Inhelder

Berne University of Applied Science, Biel / Switzerland

#### **MTU's CoolCell Unit in a Sailing Yacht on the Lake of Constance**

Martin Weinberger and Gerhard Filip

MTU Friedrichshafen GmbH, Friedrichshafen / Germany

#### **Hydroxy3000 – A Third Generation Fuel Cell Boat**

Jean-Françoise Affolter and Yvan Leuppi

University of Applied Science of Western Switzerland, Yverdon / Switzerland

#### **Demonstration of Fuel Cell Cars and Boats**

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**Session A07****14:00 - 15:30**

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## **Electrolyzers and Education**

### **Electrolyzers and Fuel Cells for Markets**

Uwe Küter

h-tec Wasserstoff Energie Systeme GmbH, Lübeck / Germany

### **Small Electrolyzers for Portable Fuel Cell Systems**

Ursula Wittstadt

FHI f. Solare Energiesysteme, Freiburg / Germany

### **Educational Fuel Cell Systems for Universities**

Henrik Colell

Heliocentris Energiesysteme GmbH, Berlin / Germany

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**Session A08****16:00 - 17:30**

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## **Miscellaneous Topics**

### **Auto Start AFC System: Self-Controlled Peripherals**

Hans-Joachim Kohnke

Gaskatel GmbH, Kassel / Germany

### **Micro Fuel Cells or Lithium Ion Polymer Batteries?**

Hans-Walter Praas

Ionity AG, Kamenz / Germany

### **Portable 1 kW SOFC Generator Operated on Methanol**

Ulf Bossel

Fucellco AG, Mägenwil / Switzerland

***Thursday, 01 July 2004***

## **Fuel Cells for Power**

*Chairman of the Day: Lars Sjunnesson*

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**Session A09**                      **09:00 - 10:30**

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### **Residential Fuel Cell Co-Generation**

#### **Residential Polymer Fuel Cell Cogen Unit**

Guido Gummert

European Fuel Cells, Hamburg / Germany

#### **PEM Fuel Cell CHP Technology: Experience and Outlook**

Ellart de Wit<sup>1</sup> and Kai Klinder<sup>2</sup>

<sup>1</sup>Plug Power Holland BV, Apeldoorn / The Netherlands

<sup>2</sup>Vaillant GmbH, Remscheid / Germany

#### **A 1kW SOFC Fuel Cell for the Generation of Electricity and Heat in Single-Family Homes**

Harald Raak, Roland Diethelm, Thomas Doerk and Susanne Riggerbach

Sulzer Hexis, Winterthur / Switzerland

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**Session A10**                      **11:00 - 12:30**

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### **Stationary Fuel Cell Power Systems**

#### **Hot Modules Generating Power in Industrial Applications**

Torsten Bardewyck

MTU CFC Solutions GmbH, München / Germany

#### **The U.S. Army ERDC-CERL Stationary PAFC and PEMFC Programs**

Michael J. Binder, Franklin Holcomb, William Taylor, Nicholas Josefik, Scott Lux and Melissa White

U.S. Army Engineer Research and Development Center, Champaign, Illinois / USA

#### **SOFC – The Challenge for Future Power Generation**

Thomas Flower

Siemens-Westinghouse, Pittsburgh, PA / USA

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**Session A11****14:00 - 15:30**

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## **Close-to-Market Fuel Cells 1**

### **Novel Hardware for Cost-Effective SOFC Systems**

Gerry D. Agnew, Alan M. Spangler, Michele Bozzolo, Philip D. Butler and James M. Townsend

Rolls-Royce Fuel Cell Systems, Derby / United Kingdom

### **500 kW MCFC Power Plant for Madrid**

Bartolomeo Marcenaro and Arturo Torazza

Ansaldo Fuel Cells, Genova / Italy

### **System Demonstration of 1-kW SOFC and Current Status of R&D Program**

Mitsuaki Takao<sup>1</sup> and Norikazu Komada<sup>2</sup>

<sup>1</sup>The Kansai Electric Power Company, Amagasaki / Japan

<sup>2</sup>Mitsubishi Materials Corporation, Naka-Gun / Japan

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**Session A12****16:00 - 17:30**

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## **Close-to-Market Fuel Cells 2**

### **Ceramic Fuel Cells Product Demonstration Program**

Karl Föger

Ceramic Fuel Cells Ltd., Noble Park / Australia

### **Global Thermoelectric's Planar SOFC Development Status**

Brian Borglum and Eric Neary

Global Thermoelectric Inc., Calgary / Canada

### **Nuvera Strategy for FC Early Market Applications**

Francesco Fiore

NUVERA Fuel Cells Europe SPA, Milano / Italy

**Friday, 02 July 2004**

## **Getting Ready for Fuel Cells**

*Chairman of the Day: Meinrad Eberle*

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**Session 13**                      **09:00 - 10:30**

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### **Fuel Cell Peripherals**

#### **Electron Storage Unit Based on Supercapacitors**

Theo van Bakkum

ICCU Holding B.V., Haarlem / The Netherlands

#### **Fuels and Fuel Processing Options for Fuel Cells**

John Bogild Hansen

Haldor Topsoe A/S, Lyngby / Denmark

#### **Direct Conversion of Sustainable Biofuels in MCFCs**

Gerhard Huppmann

MTU CFC Solutions GmbH, München / Germany

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**Session 14**                      **11:00 - 12:30**

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### **Moving towards Sustainability**

#### **Viable and Sustaining Energy Strategies Grounded in Source-to-Service Analyses**

Jan H. J. S. Thijssen

J. Thijssen, LLC, Redmond, WA / USA

#### **Accounting for External Costs – A First Step towards Sustainability**

Olav Hohmeyer

Universität Flensburg, Flensburg / Germany

#### **Christian Friedrich Schoenbein Medal Award Presentation**

and

**Closing Ceremony**