

The fuel cell | 9th Forum for Producers and Users



Foto: Daimler AG

The international forum
for the fuel cell industry

Special:
Japan – the fuel cell on
the verge of market entry

Sept. 28-29, 09
Stuttgart
Germany

Haus der
Wirtschaft

Symposium
Specialized lectures
Trade Fair
f-cell *award*
Seminars
Evening event

www.f-cell.de



Welcome to f-cell 2009

With more than 650 attendees from all over the world, f-cell is one of the largest events in the fuel cell and hydrogen sector in Europe.

International renowned speakers will be presenting the state of the art. Current developments and applications in the mobile, stationary and portable deployment of the fuel cell and hydrogen technology will be discussed in a number of sessions.

The symposium doesn't only stand out through its diversified topics but also its practical approach. For nine years experts and managers from business have been using f-cell as an information and communication platform.

Special focus of this year: Japan – the fuel cell on the verge of market entry

Japan is one of the countries that are setting the pace in the application of fuel cells. The fuel cell technology has already found a place in the everyday life of many companies in Japan.

Regarding the critical mass that enables market entry of the technology, Japan is far ahead of Europe. In order to provide f-cell visitors with comprehensive insight into Japanese activities, several speakers from Japan have been integrated into the series of lectures.

The accompanying f-cell trade fair brings together developers, producers and users, providing valuable insight into the current fuel cell market.

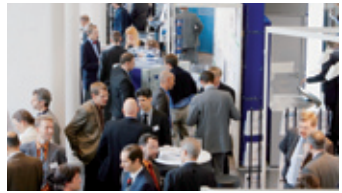
Once again this year, the symposium and trade fair will be complemented with a comprehensive, interesting program of additional activities.

Visit f-cell and talk to scientists and representatives of the business world about a promising energy technology for the future.

Program modifications are possible in individual cases. You will find the current program on the Internet at www.f-cell.de/english.

All the events will be simultaneously interpreted German – English and English – German.

We look forward to receiving your registration!



Accompanying Events

Evening Event

This year, the restaurant CUBE in downtown Stuttgart is the venue for the f-cell evening event.

Following the official presentation of the f-cell *awards*, you will have an opportunity to meet the participants and speakers in a relaxed atmosphere. Complete the convention day in the most spectacular venue in Stuttgart by taking in the unique view of the city while enjoying the excellent cuisine and interesting discussions.

f-cell *award* (Innovative fuel cell technology)

The fuel cell *award* in gold, silver and bronze will be presented at the f-cell evening event in Stuttgart. The award honors outstanding performance and innovation in the field of fuel cell technology.

Trade Fair

As in previous years, the symposium will be accompanied on both days by a trade fair. The f-cell trade fair is the forum for providers who wish to present their developments to an international audience of experts. With approximately 50 exhibitors, the trade fair has developed into an important part of the event.

Make use of this platform to interchange information and knowledge, to initiate new business relationships, and for networking.

Meet the speakers

You have the opportunity to talk to the speakers after the lecture and intensify the discussions in smaller groups. Use these informal meetings to get to know interesting discussion partners and to expand your network.

Excursion

Program in process. Information at www.f-cell.de/english.

Meet the regional experts

The Stuttgart Region Economic Development Corporation (Wirtschaftsförderung Region Stuttgart GmbH) is offering interested companies the possibility to get in contact with high-caliber experts from the established fuel cell sector in the Stuttgart region. During the half-hour talks, you can discuss questions regarding business perspectives, research and development cooperations, networking possibilities, and services of the Stuttgart Region Economic Development Corporation. Registration at www.f-cell.de.

You will find more detailed information on the Internet at www.f-cell.de/english.

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Program	
9-28-2009	9-29-2009
A Global Markets	Plenum
B1 Technology, Markets, Applications	D2 Portable Fuel Cells in Applications
B2 Latest Information from the Science Sector	D3 Fuel Cell Components
Meet the speakers	Meet the speakers
	D1/E1 Fuel Cell Technology in Mobile Application
	E2 Fuel Cell Technology in Stationary Application
	E3 Market Opportunities/Marketing Strategies
	Meet the speakers
Trade Fair	
C Evening Event	

Monday 9-28-2009

Forum A Global Markets	
Chairwoman: Ursula Hoffmann, SWR, Stuttgart	
9:30 a.m.	Welcome Dr. Walter Rogg, Stuttgart Region Economic Development Corp.
9:35 a.m.	Electro mobility – roadmap Baden-Wuerttemberg Assistant Secretary of State, Bernhard Bauer, Ministry for the Environment in Baden-Wuerttemberg, Stuttgart
9:50 a.m.	Market preparation of future fuel and drive technologies in Germany Dr. Klaus Bonhoff, NOW GmbH, Berlin
10:10 a.m.	Towards a hydrogen-fuelled economy in Europe Philippe Vannson, Fuel cells and hydrogen joint undertaking, Brussels, Belgium
10:30 a.m.	Update on U.S. federal policy – the impact of the Obama administration on the industry Bob Rose, US Fuel Cell Council, Washington DC, USA
10:50 a.m.	Coffee break
11:20 a.m.	Hydrogen fuel cell vehicles on the road in California: moving toward early market Catherine Dunwoody, Californian Fuel Cell Partnership, USA
11:40 a.m.	R&D activities on fuel cells Dr. Makoto Uchida, Yamanashi University, Japan
12:00 a.m.	Hydrogen and fuel cell industry in India Dr. R. K. Malhotra, Indian Oil Corporation Ltd., Haryana, India
12:20 a.m.	Panel discussion
1:00 p.m.	Lunch



Monday 9-28-2009

Forum B1 Technology, Markets, Applications

Chairman:	Kai Klinder, NOW GmbH, Berlin
2:30 p.m.	Implementation of the National Innovation Program NIP in the field of stationary applications Kai Klinder, NOW GmbH, Berlin
2:50 p.m.	Hydrogen Village John Tak, Canadian Hydrogen and Fuel Cell Association, Vancouver, Canada
3:10 p.m.	Developing a hydrogen infrastructure Ulf Hafsel, StatoilHydro, Stavanger, Norway
3:30 p.m.	Coffee break
4:00 p.m.	PEM fuel cell as UPS in mines Siegfried Suchanek, Rittal GmbH & Co. KG, Herborn
4:20 p.m.	Autonomous energy supply systems with PEM fuel cells and reformer technology Dirk Weniger, b+w Electronic Systems GmbH & Co. KG (OEM Partner IdaTech), Oberhausen
4:40 p.m.	Meet the speakers

Forum B2 Latest Information from the Science Sector

Chairman:	Prof. Kaspar Andreas Friedrich, German Aerospace Center (DLR), Stuttgart
2:30 p.m.	Significance and outlook of CO₂ storage and hydrogen energy systems Dr. Shuichiro Hirai, Tokyo Institute of Technology, Japan
2:50 p.m.	Overview of diagnostic methods for fuel cells Prof. Dr. Kaspar Andreas Friedrich, German Aerospace Center (DLR), Stuttgart
3:10 p.m.	In situ visualisation of liquid water formation and transport processes in PEM fuel cells Philipp Krüger, Center for Solar Energy and Hydrogen Research (ZSW), Ulm
3:30 p.m.	Coffee break
4:00 p.m.	System analysis and development of high-temperature polymer fuel cell systems Prof. Dr. Detlef Stolten, Juelich Research Center GmbH
4:20 p.m.	Overview of the degradation mechanisms in PEFCs Dr. Mathias Schulze, German Aerospace Center (DLR), Stuttgart
4:40 p.m.	Ethanol microreformers for hydrogen production for a portable 250 W fuel cell system Dr. Thomas Aicher, Fraunhofer Institute for Solar Energy Systems (ISE), Freiburg
5:00 p.m.	Meet the speakers

Tuesday 9-29-2009

Auditorium	
Chairman:	Prof. Dr. Werner Tillmetz, Center for Solar Energy and Hydrogen Research (ZSW), Ulm
9:00 a.m.	Batteries and fuel cells – key technologies for sustained mobility Prof. Dr. Werner Tillmetz, Center for Solar Energy and Hydrogen Research (ZSW), Ulm
9:30 a.m.	Electrification of the automobile Dr. Jörg Wind, Daimler AG, Stuttgart

Forum D1 Fuel Cells in Mobile Application I	
Chairman:	Dr. Jörg Wind, Daimler AG, Stuttgart
10:00 a.m.	Fuel cell or battery vehicle? Similar drives, different infrastructure Rittmar von Helmholtz, General Motors Fuel Cell Activities, Rüsselsheim
10:20 a.m.	Fuel cell car development and commercialization Ikuo Kasahara, Toyota Motor Europe, Zaventem, Belgium
10:40 a.m.	Latest FCV development in Nissan – challenges for durability and costs Dr. Akihiro Ilyama, Nissan Motor Co., Ltd., Kanagawa, Japan
11:00 a.m.	Coffee break
11:30 a.m.	The electric powertrain of the Honda fuel cell car FCX Clarity Fabian Ottmann, Honda R&D Europe, Offenbach
11:50 a.m.	Hydro Smart – electric vehicle with fuel cell range extender Martin Ziegler, University of Applied Sciences, Esslingen
12:10 a.m.	Fuel cell systems for aviation Dr. Josef Kallo, German Aerospace Center (DLR), Stuttgart
12:30 a.m.	Meet the speakers
1:00 p.m.	Lunch

Forum E1 Fuel Cells in Mobile Application II	
Chairman:	Heinrich Klingenberg, hySOLUTIONS GmbH, Hamburg
2:30 p.m.	Science to the real world – direct hydrazine anion exchange membrane fuel cells Dr. Hirohisa Tanaka, Daihatsu Motor Co., Ltd., Osaka, Japan
2:50 p.m.	Competitive costs, high performance, long service life – the key to commercialization Dr. Andreas Truckenbrodt / Dr. Georg Frank, Automotive Fuel Cell Cooperation, Vancouver, Canada
3:10 p.m.	Low-emission mobility. Strategy of the City of Hamburg for the next few decades Heinrich Klingenberg, hySOLUTIONS GmbH, Hamburg
3:30 p.m.	Coffee break
4:00 p.m.	hy.muve – hydrogen driven municipal vehicle Peter Schlienger, EMPA, Dübendorf, Switzerland
4:20 p.m.	Fuel cell hybrid systems in commercial vehicles – new deployment possibilities Dr. Joachim Kroemer, Proton Motor Fuel Cell GmbH, Starnberg
4:40 p.m.	A novel supply method for gaseous high pressure Katrin Meyer, Air Products GmbH, Hattingen
5:00 p.m.	Meet the speakers



Auditorium

Forum D2 Fuel Cells in Portable Application

Chairman: Dr. Christopher Hebling, Fraunhofer Institute for Solar Energy Systems (ISE), Freiburg

10:00 a.m. **Fuel cell systems for portable electronic devices and for light traction vehicles**

Dr. Christopher Hebling, Fraunhofer Institute for Solar Energy Systems (ISE), Freiburg

10:20 a.m. **Fuel cells for portable applications: a perspective from B.C.**

Dr. Walter Mérida, University of British Columbia, Vancouver, Canada

10:40 a.m. **Portable fuel cell applications**

Bernhard Gutmann, Clean Mobile, Munich

11:00 a.m. Coffee break

11:30 a.m. **Micro fuel cells with small power in use for longterm operation**

Dr. Alexander Dyck, FVB Kunststofftechnik, Pirmasens

11:50 a.m. **The latest development status of 300W class DMFC stacks and portable generation systems**

Dr. Masayoshi Hayashi, Mitsubishi Gas Chemical Company Inc., Tokyo, Japan

12:10 a.m. **Issues concerning planar and tubular solid oxide fuel cells for portable applications**

Prof. Anil Virkar, University of Utah, Salt Lake City, USA

12:30 a.m. Meet the speakers

1:00 p.m. Lunch

Forum E2 Fuel Cells in Stationary Application

Chairman: Dr. Wolfram Münch, EnBW AG, Karlsruhe

2:30 p.m. **Fuel cells in household energy supply – projects of EnBW at pioneer customers**

Markus Edel, EnBW Vertriebs- und Servicegesellschaft mbH, Stuttgart

2:50 p.m. **Status of residential fuel cells at Tokyo Gas**

Kunihiro Nishizaki, Tokyo Gas Co., Ltd., Japan

3:10 p.m. **Fuel cell heating unit Galileo 1000N**

Volker Nerlich, Hexis AG, Winterthur, Switzerland

3:30 p.m. Coffee break

4:00 p.m. **Fuel cell unit HotModule: Highest efficiency and cleanliness with sustained basic load supply**

Peter Landgraf, mtu onsite Energy GmbH, Ottobrunn

4:20 p.m. **Improving reliability of telecom backup power using fuel cells**

Geoff Budd, Ballard Power Systems Inc., Burnaby, Canada

4:40 p.m. **GAMMA 1.0 - quality standard of an innovation: development concept and market preparation strategy**

Guido Gummert, Baxi Innotech fuel cell heating, Hamburg

5:00 p.m. Meet the speakers



Auditorium

Forum D3 Fuel Cell System Components

Chairman: Dr. Rudolf Henne, German Aerospace Center (DLR), Stuttgart

10:00 a.m.	The quality of stack supply air – a challenge for fuel cell filters Thomas Fischer, Freudenberg FCCT KG, Weinheim
10:20 a.m.	Selected results from the composite project „Development of low-cost components for fuel cell systems relevant to operation (small device range) Dr. Ludwig Jörissen, Center for Solar Energy and Hydrogen Research (ZSW), Ulm
10:40 a.m.	Series production of CFY interconnectors for stationary SOFC systems Klaus Rissbacher, Plansee SE, Reutte, Austria
11:00 a.m.	Coffee break
11:30 a.m.	Features of cost-optimized metallic bipolar plate modules for robust mobile PEFC applications Dr. Raimund Ströbel, DANA / Reinz-Dichtungs GmbH, Neu-Ulm
11:50 a.m.	Advanced production of bipolar plate units for fuel cells Alexander Hangst, TRUMPF Laser GmbH + Co. KG, Schramberg; Achim Edelmann, Gräbener Maschinentechnik GmbH & Co. KG , Netphen-Werthenbach
12:10 a.m.	Guide values of bipolar plates in comparison Dr. Peter Beckhaus, Zentrum für BrennstoffzellenTechnik gGmbH, Duisburg
12:30 a.m.	Meet the speakers
1:00 p.m.	Lunch

Forum E3 Market Opportunities / Strategies

Chairwoman: Sybille Riepe, motum GmbH, Hamburg

2:30 p.m.	Marketing strategies for the fuel cell technology Duncan Bott, Fuel Cell Markets Ltd., Buckinghamshire, England
3:00 p.m.	Benchmarking - standardization of FC connections Prof. Dr. Birgit Scheppat, Wasserstoff- und Brennstoffzellen- Initiative Hessen
3:25 p.m.	Coffee break
3:55 p.m.	Fuel Cell marketing in Japan Takehiko Kato, Interlink Co., Tokyo, Japan
4:15 p.m.	Meeting and exceeding market acceptance thresholds for PEM fuel cell power systems in early markets Mark Kammerer, Hydrogenics Co., Gladbeck
4:35 p.m.	Revealing niche markets Wilfried Müller, Masterflex AG, Herten
4:55 p.m.	Meet the speakers

Conditions for registration and general information

Fees and performance

Symposium	Two-Day ticket 9/28-29/09	EUR 695,-*
	One-Day ticket 9/28/09	EUR 395,-*
	One-Day ticket 9/29/09	EUR 395,-*

The fees include a one-day or two-day participation in the symposium, access to the trade fair, documentation, drinks and lunch during the days booked.

Evening event	9/28/09	EUR 75,-*
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The fee includes participation in the buffet and program.

19% VAT will be added to all prices stated.

Registration

In written form, addressed to Peter Sauber Agentur Messen und Kongresse GmbH. Following receipt of your application, you will get a letter of confirmation and the invoice. You will receive your name tag and documents at the check-in desk upon presentation of the letter of confirmation.

Applications received after September 18, 2009 may not be confirmed in time. All applications are nevertheless legally binding.

Cancellations

Cancellations prior to August 31, 2009 will be credited or refunded after deduction of a 25% processing fee. Refunds are not possible for cancellations received after August 31, 2009. Certainly a substitute can be nominated instead. Due to the early date of going to press, program changes can still occur. These do not justify cancellations.

The current status can be viewed at www.f-cell.de/english.

Payment

Payment immediately after receipt of invoice. In the case of registration at short notice, it is possible to pay on the spot using a credit card (VISA, MasterCard, JCB cards) or in cash.

Organizer and registration

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Messen und Kongresse GmbH
Wankelstraße 1
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Phone +49 711 656960-51
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e-mail: f-cell@messe-sauber.de

Accommodation

Please contact:
Stuttgart Marketing GmbH
Phone +49 711 2228-233
Fax +49 711 2228-251
directly, stating the password "f-cell" or choose the button „Accommodation“ on www.f-cell.de/english.

Venue

Haus der Wirtschaft
Willi-Bleicher-Straße 19
DE-70174 Stuttgart
Phone +49 711 123-0

Registration form

Please send us a separate form/copy for each participant.

I will be attending **f-cell – the fuel cell Forum**. Please make your choice:

I plan to attend the following sessions.

Symposium

Please mark.

Two-day ticket 9/28-29/09

9/28/09 afternoon:

EUR 695,-* B1 B2

One-day ticket 9/28/09

9/29/09 morning:

EUR 395,-*

D1 D2 D3

One-day ticket 9/29/09

9/29/09 afternoon:

EUR 395,-*

E1 E2 E3

Evening Event

9/28/09 EUR 75,-*

Expert discussion

incl. buffet und program

I am Interested in an expert

talk without charge.

Trade fair

Please send me additional information for exhibitors.

The trade fair visit is free of charge for symposium participants.

* 19% VAT will be added to all prices stated.

Last Name

First Name

Position

Company/Institution

Street

Postal code/City

Telephone/Fax

E-Mail/www

I have accepted the conditions for registration.

Date/Signature

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In cooperation with



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Host



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The registration form is designed to fit
window envelopes

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