Conference Program

Haus der Wirtschaft, Stuttgart, Germany
September 10+11, 2019

Book your conference ticket at f-cell.de/registration

f-cell.de  #fcell19  #fcellaward
Doing business in hydrogen and fuel cells

Find out and discuss about international markets, industries and technological advancements in this annual must-attend event for hydrogen and fuel-cell professionals. The interactive format is an ideal platform for experts and newcomers alike to connect, discuss and set up sustainable business relationships.

Find out, connect, interact

f-cell consists of a conference, interactive workshops, topic tables, an evening event presenting the f-cell award and an international trade fair, a meeting place to interact with peers, celebrate innovation and discover the latest products and services.

Let’s talk about hydrogen and fuel cells!

Follow the latest news about f-cell and enter into the discussion about hydrogen and fuel cell on social media (LinkedIn, Xing, Twitter) using the hashtags #fcell19 #fcellaward

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f-cell award rewarding innovation

The Baden-Württemberg Ministry of the Environment, Climate Protection and the Energy Sector along with the Stuttgart Region Economic Development Corporation are inviting entries for the 19th award for innovative hydrogen and fuel cell technologies “f-cell award”, with prizes totalling € 20,000.

Submissions can be handed in for the following categories
• Research & Development
• Products & Markets
• Innovative cooperation projects between Baden-Württemberg and France

Submit your innovative hydrogen and fuel cell projects and technologies at f-cell.de/award
Submission Deadline: Friday, July 26, 2019

f-cell award ceremony on September 10, 2019

The award will be presented during the f-cell evening event at the Stadtpalais in Stuttgart by the Minister of the Environment of Baden-Württemberg, Franz Untersteller MdL.

Book your ticket for the f-cell evening event at f-cell.de/registration
### Tuesday, September 10

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<th>Event</th>
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<td>9:00–9:30</td>
<td>Registration</td>
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<tr>
<td>9:30–11:00</td>
<td>Opening Plenary</td>
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<td></td>
<td>Welcome, Market Overviews</td>
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<td>Germany, Europe, China</td>
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<tr>
<td>11:00–11:30</td>
<td>Coffee Break</td>
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<td>11:30–13:00</td>
<td>Plenary I</td>
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<td>Critical Raw Materials, CertifHy, f-cell Beyond the Box</td>
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<td>13:00–14:30</td>
<td>Lunch Break</td>
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<td>Visit the exhibition, network with peers</td>
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<tr>
<td>14:30–15:30</td>
<td>Commercial Vehicles</td>
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<td>14:30–15:30</td>
<td>Electrolysis</td>
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<td>14:30–15:30</td>
<td>Hydrogen Regions</td>
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<td>14:30–15:30</td>
<td>Workshop: Doing Business in China</td>
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<td>15:30–16:00</td>
<td>Coffee Break</td>
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<td>16:00–17:00</td>
<td>Plenary II</td>
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<td>f-cell Talk: What Drives our Future?</td>
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### Wednesday, September 11

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<th>Time</th>
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<tbody>
<tr>
<td>9:00–10:30</td>
<td>Plenary III</td>
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<td>Market Overviews</td>
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<td>USA, Japan, Australia</td>
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<td>10:30–11:00</td>
<td>Coffee Break</td>
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<td>11:00–12:30</td>
<td>Plenary IV</td>
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<td>Market Overviews</td>
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<td>Switzerland, Chile, Netherlands</td>
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<td>15:30–16:30</td>
<td>Large Scale Hydrogen Refueling Station Concepts</td>
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<td>15:30–16:30</td>
<td>News from the German Science Sector</td>
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<td>15:30–16:30</td>
<td>Matchmaking</td>
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<td>16:30–17:00</td>
<td>Farewell Drink</td>
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<td>9:30 – 11:00</td>
<td>Opening Plenary</td>
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<td>9:30</td>
<td>Welcome note</td>
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<td>9:30</td>
<td>The German hydrogen and fuel cell landscape</td>
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<td>10:00</td>
<td>An outside view of the hydrogen and fuel cell landscape in China</td>
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<td>10:30</td>
<td>Demonstrating sectorial integration through hydrogen valleys</td>
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<td>11:30</td>
<td>Critical Raw Materials for Electric Vehicles</td>
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<td>12:00</td>
<td>CertifHy: A European Guarantee of Origin Platform to prove the environmental benefits of hydrogen</td>
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<td>12:30</td>
<td>f-cell: Beyond the Box</td>
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<td>14:30 – 15:30</td>
<td>Commercial Vehicles</td>
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<td>14:30</td>
<td>Commercialization of HD Fuel Cell Trucks – How to Get Going</td>
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<td>14:50</td>
<td>The Fuel Cell System Solution of Commercial FCEV in China</td>
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<td>15:10</td>
<td>Implementation of cutting edge fuel cell technology throughout the transport system</td>
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<td>14:30 – 15:30</td>
<td>Electrolysis</td>
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<td>14:30</td>
<td>High Temperature Electrolysis – Efficient Industry Solution Enabling Lowest H₂ Cost</td>
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<td>14:50</td>
<td>Large Scale PEM Electrolysis for Industrial Applications</td>
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<td>15:10</td>
<td>Demonstration of a 10 MW PEM electrolyser at a refinery</td>
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For the up to date program check [f-cell.de/program](http://f-cell.de/program)

Register for the conference at [f-cell.de/registration](http://f-cell.de/registration)
Tuesday, September 10

14:30 – 15:30
**Hydrogen Regions**
Chair: Thomas Kattenstein, EnergieAgentur.NRW, Germany

14:30  Project eFarm
André Steinau, GP Joule, Germany

14:50  HYPOS – Green Hydrogen in East Germany
Stefan Bergander, HYPOS, Germany

15:10  Burgundy-Franche Comté: Green Hydrogen Strategy to turn the region into a positive energy region
Emmanuel Schuddinck, justy, France

16:00 – 17:00
**Plenary II**

**f-cell talk: What Drives our Future**
Chair: Jürgen Pfeiffer, PFEIFFER fragt - der Polit.Talk, Germany

Panel discussion about how viable, suitable and future-proof alternative drives are. A comparison between BEV, FCEV and synthetic fuels.

Wednesday, September 11

9:00 – 10:30
**Plenary III**
Chair: Bart Biebuyck, FCH JU, Belgium

9:00  Fuel Cells and Hydrogen Energy in the USA: Past, Present, and Future
Morry Markowitz, FCHEA, USA

9:30  Current status of hydrogen stations in Japan and Tokyo Gas’s initiatives
Kazuyoshi Honda, Tokyo Gas, Japan

10:00  Hydrogen in Australia: Ramping up Commercialization
Attilio Pigneri, the Hydrogen UtilityTM – H2U, Australia

11:00 – 12:30
**Plenary IV**
Chair: Bart Biebuyck, FCH JU, Belgium

11:00  A new marketplace for H2 in mobility in Switzerland
Daniel Hofer, Aenergy Suisse, Switzerland

11:30  Why is Chile “The hidden Champion” of Power-to-X?
Hans-Werner Kulenkampff, H2 Chile - Chilean Hydrogen Association, Chile

12:00  The Netherlands, a frontrunner in hydrogen?
A.C.S. Schipstra, N.V. Nederlandse Gasunie, Netherlands

14:00 – 15:00
**Heavy Duty: Buses**
Chair: Dr. Frank Koch, EnergieAgentur.NRW, Germany

14:00  Urban mobility with fuel cell – a prospect for dynamic start ups
Gerhard Schneider, ebe EUROPA GmbH, Germany

14:20  Toyota’s hydrogen and electrifications strategy
Stephan Herbst, Toyota, Germany

14:40  Linking mobility and energy sector to operate hydrogen busses efficiently
Andreas Meyer, Wuppertaler Stadtwerke, Germany

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14:00 – 15:00
**Modes of Transport: Technical Similarities and Discrepancies**
*Chair:* Thorsten Herbert, NOW, Germany

14:00  *Coradia iLint: World’s first hydrogen train in regular passenger operation*
Stefan Schrank, Alstom, Germany

14:20  *Update on development of emission free hybrid propulsion systems for aircraft applications*
Prof. Dr.-Ing. Josef Kallo, German Aerospace Center, Germany

14:40  *Zero emission hydrogen ferry*
Frode Skaar, Westcon Power & Automation AS, Sweden

15:30 – 16:30
**Large scale hydrogen refueling station concepts**
*Chair:* Jorgo Chatzimarkakis, Hydrogen Europe, Belgium

15:30  *Optimal design and cost of a potential hydrogen refueling station network for heavy-duty vehicles in Germany in 2050*
Prof. Martin Wietschel, Fraunhofer ISI, Germany

15:50  *tbc*

16:10  *Let’s go exponential with Lindes large scale H2 train stations*
Ahmed Elmenshawy, Linde Hydrogen FuelTech GmbH, Germany

15:30 – 16:30
**News from the German Science Sector**
*Chair:* Alexander Dyck, German Aerospace Center, Institute of Networked Energy Systems, Germany

15:30  *New trends in low temperature electrolysis: AEM and NH3 electro-synthesis*
Dr. Aldo Saul Gago Rodriguez, German Aerospace Center, Germany and Dr.-Ing. Corinna Harms, DLR Institute of Networked Energy Systems – Division fuel cells, Germany

15:50  *Independent laboratories for the hydrogen quality analysis*
Dr.-Ing. Christian Spitta, ZBT GmbH – The hydrogen and fuel cell center, Germany

16:10  *Models of potential induced fuel cell degradation*
Ulf Groos, Fraunhofer ISE, Germany

15:00 – 16:30
**Matchmaking**
Utilize this session to pre-arrange meaningful appointments with future business partners.
More information will follow on f-cell.de

**Conference App**
Outside the matchmaking session you can contact all other conference participants through the f-cell Conference App which is available to all registered delegates.

For the up to date program check f-cell.de/program

Register for the conference at f-cell.de/registration
Workshop Electrochemical Hydrogen Purification

Wednesday, September 11, 13:30–15:00

This workshop presents the results of the EU project “Membrane based Purification of Hydrogen System”, or MEMPHYS, which aims to develop a hydrogen purification system to reuse hydrogen from different industrial sources. The system is to be based on a membrane hydrogen purification module, with the aim of being clean, reliable and inexpensive. Intended to combine with other systems to filter hydrogen and compressing it to 200 bar for use in various applications.

The initiative is part of the Fuel Cells and Hydrogen Joint Undertaking (FCH JU), a sub-grouping under Horizon 2020 focusing on hydrogen and fuel cells. As part of the Horizon 2020 initiative, MEMPHYS receives funding from the EU and has a budget of about 2 Million Euros.

Find more information about MEMPHYS at www.memphys.eu

Agenda:

Session Chair: Prof. Dr. Sven Schmitz, Duale Hochschule Baden-Württemberg, Germany

13:30–14:00
Modelling of Electrochemical Hydrogen Purification and Compression
Dr. Uwe Reimer, Forschungszentrum Jülich GmbH, Germany

14:00–14:30
Electrochemical Hydrogen Compression in the Hydrogen Fuel Chain
Leonard Raymakers, HyET Hydrogen B.V., Netherlands

14:30–15:00
Economical Assessment of Hydrogen Recycling with Electrochemical Hydrogen Purification
Linda Schorer, Duale Hochschule Baden-Württemberg, Mannheim, Germany

Workshop Doing Business in China

Tuesday, September 10, 14:30-15:30 and Wednesday, September 11, 14:00–15:00

China is one of the most important export markets for Germany. The hydrogen and fuel cell market in China is thriving and the National Alliance of Hydrogen and Fuel Cell (China Hydrogen), launched in 2018, will ensure that hydrogen-related measures are coordinated. By 2050, it is estimated that ten percent of Chinese energy system will be powered by hydrogen and the annual production of hydrogen and fuel cell vehicles will reach 5.2 million. These will then be able to be filled at 10,000 hydrogen filling stations around the country. These targets will be achieved with the help of extensive development programs from the government in Beijing.

This workshop, aimed at SMEs, wanting to take first steps in the Chinese market, will address questions like:
• How to get into this market?
• What are the considerations to be made when starting business relations with Chinese companies and organizations?

Check the workshop agenda at f-cell.de/workshops

This workshop is included in the f-cell conference ticket – book your ticket at f-cell.de/registration
International Trade Fair – networking in the heart of f-cell

A location set for networking, product promotion and partnership building. As one of the key hubs for the hydrogen and fuel cell community to network, f-cell enables you to meet the key players of the rapidly changing international hydrogen and fuel cell industry, build sustainable business connections and initiate new projects.

Participate in the Trade Fair

The trade fair will be open on both days of the event, allowing participants and visitors to visit more than once. Entrance to the trade fair is included in all conference tickets. Trade fair tickets are available at f-cell.de/registration

Book booth space by contacting Irma Grandel at Irma.grandel@messe-sauber.de

Exhibitors at f-cell 2019 include:

For the full list of exhibitors visit f-cell.de/exhibitorlist

Thank you to the partners of f-cell 2019

Partners

Canadian Hydrogen and Fuel Cell Association

State Agency for Electric Mobility and Fuel Cell Technology Baden-Württemberg GmbH

Fuel Cell and Hydrogen Energy Association

Hydrogen Europe

Baden-Württemberg Wirtschaftsförderung Region Stuttgart

NewsLetter H2 + BZ

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