

UPCOMING EVENTS

3rd Summer school on SOFC-Technology

3th-8th September 2006

Venue:

Hotel Myrina

Lemnos, Greece



<http://sofc2006.iceht.forth.gr>

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Real SOFC Contacts

Project Fuel Cells

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PARTNERS

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Commissariat à l'Énergie Atomique (CEA)

University of St Andrew (USTAN)

Deutsches Zentrum für Luft- und Raumfahrt e.V.
(DLR)

Entwicklungs- und Vertriebsgesellschaft

Brennstoffzelle mbH (EBZ)

Energy Research Centre of the Netherlands (ECN)

Electricité de France (EDF)

Swiss Federal Laboratories for Materials Testing and
Research (EMPA)

ENERGOPROECT AD – Science Research and
Technological Institute (ENERGO)

Gaz de France (GDF)

H.C. Starck GmbH (HCST)

Topsøe Fuel Cells (TOFC)

HTceramix SA (HTc)

The Imperial College (Imperial)

Foundation for Research & Technology Hellas
(FORTH-ICEHT)

Plansee SE (Plansee)

Risø National Laboratory (Risø)

Stiftelsen for industriell og teknisk forskning ved
Norges (SINTEF)

Hexis AG (HEXIS)

University of Birmingham (UBHAM)

University of Chemical Technology & Metallurgy,
Sofia (UCTM)

Technical Research Centre of Finland (VTT)

Wärtsilä Corporation (Wärtsilä)

University of Genoa (UNIGE)



Realising Reliable, Durable,
Energy Efficient and Cost
Effective SOFC Systems

Real-SOFC

<http://www.real-sofc.org>

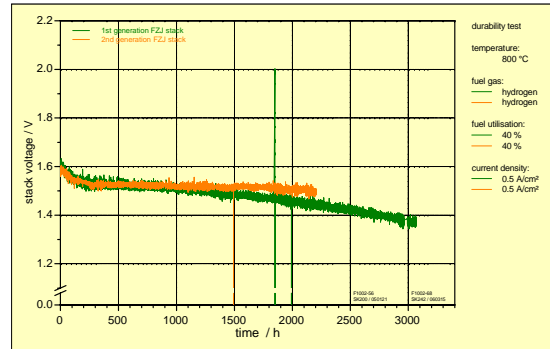
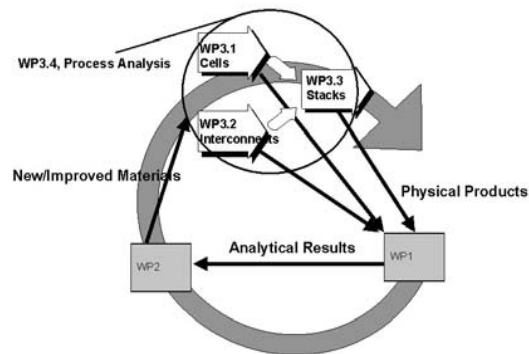
Supported by the European Commission
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Real SOFC

The aim of the Integrated Project Real-SOFC is to solve the persisting generic problems of ageing with planar Solid Oxide Fuel Cells (SOFC) in a concerted action of the European fuel cell industry and research institutions. This includes gaining full understanding of degradation processes, finding solutions to reduce ageing and producing improved materials that will then be tested in stacks. In this process further consideration will be given to the design of cost effective materials, low cost components and optimised manufacturing processes. In close co-operation between industry and research institutions the following steps are to be accomplished:

- improved understanding of ageing in planar SOFC stacks considering all modes of operation, including long-term testing over 10.000 hrs., thermal cycling up to 100 cycles, and the influences of fuel composition; these results will flow into
- adaptation of materials and protective coatings in order to reduce ageing to well below 0,5%/1000 hrs., the modified materials then are used in
- manufacturing of improved components under commercial conditions and subsequent characterisation in long-term and cycling tests – re-referring to step 1.



Besides the materials development and long term testing the project addresses the topics of

- Life Cycle Analysis as an essential tool for assessing the environmental impact and recycling of the materials used,
- industrial standardisation as a means of lowering costs and improving industry competitiveness, and
- training and dissemination as a tool of human resource management and a contribution towards gender equality.



Project organisation

Work Package 1 – Understanding of ageing of SOFC for industrial applications

(Coordination: Bert Rietveld, ECN)

Work Package 2 – Improved and new materials, components, cells and concepts for systems with increased durability and performance

(Coordination: Dr. Frank Tietz, FZJ)

Work Package 3 – Manufacturing of cells and stacks

(Coordination: Olivier Bucheli, HTc)

Work Package 4 – Standardisation of SOFCs and test methods

(Coordination: Dr. Rolf Rosenberg, VTT)

Work Package 5 – Environmental aspects of SOFC operation

(Coordination: Dr. Moshine Zahid, EdF)

Work Package 6 – Training and dissemination

(Coordination: Dr. Peter Holtappels, EMPA)



Project coordination:

Dr Robert Steinberger-Wilckens, Coordinator
Project Management Office (FZJ)

The project, supported by the European Commission through FP 6, started on 1 February 2004 and will terminate on 31 January 2008.

