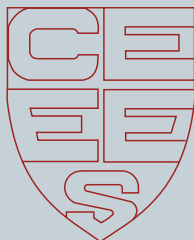


PROGRAM



**Gesellschaft für
Umweltsimulation e.V.**



CEEES-CONFERENCE

ENVIRONMENTAL TESTING AND SAFETY OF BATTERIES AND FUEL CELLS

18th SEPTEMBER 2014

FRAUNHOFER ICT, PFINZTAL, GERMANY

CEEES-CONFERENCE

ENVIRONMENTAL TESTING AND SAFETY OF BATTERIES AND FUEL CELLS

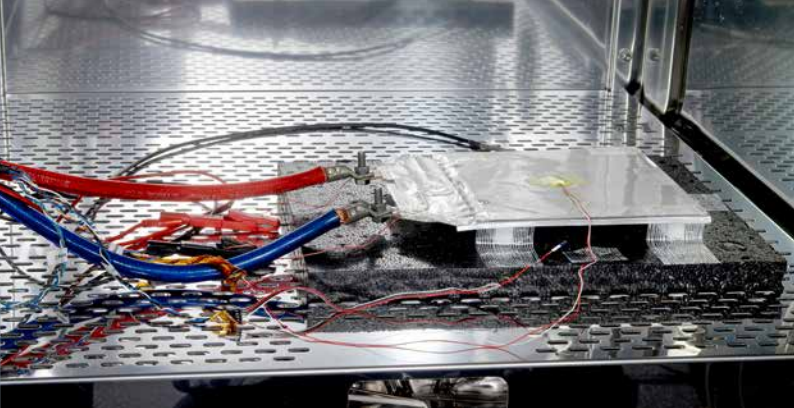
The CEEES members GUS (Germany) and PLOT (Netherlands) are organizing a conference on "Environmental testing and safety of batteries and fuel cells". CEEES stands for Confederation of European Environmental Engineering Societies, and is a European umbrella association, comprising national associations in Austria, Belgium, Czech Republic, Finland, France, Germany, Italy, the Netherlands, Portugal, Sweden, Switzerland, United Kingdom and others.

Objective and scope

The objective of the conference is to present and discuss the current and future position of "Environmental testing and safety of batteries and fuel cells" in Europe.

Sessions

- Session A** Battery safety and regulations
- Session B** Environmental testing and safety behaviour of fuel cells
- Session C** Environmental testing and safety behaviour of batteries
- Session D** Evaluation of critical parameters of battery cells
- Session E** Environmental testing and safety behaviour of batteries
- Session F** Modelling and simulation of safety behaviour



Keynotes

Lois Brett, European Commission, DG JRC IET

Franz Loogen, e-mobil BW GmbH

Language

The conference language will be English.

Symposium Chairman

Jens Tübke, Fraunhofer ICT, Germany

Conference Venue

Fraunhofer Institute for Chemical Technology,

Joseph-von-Fraunhofer Strasse 7, 76327 Pfinztal, Germany

Registration fee

- Please register online at www.gus-ev.de
- Participant fee: € 120,00
- Reduced fee for CEEES delegates, chairpersons and authors:
€ 60,00 (one author per contribution)

Cancellation

Full refunding of the registration fee will be possible only before 1st September 2014. After this date no refunding is possible.

Accommodation

Please book your hotel reservation: Hotel Welt Kübler
(<http://4a-hotelwelt.de/buchungsinformation/booking>).

Reservations are available till 20th August 2014 by using code
"CEES 2014". Prices per day:

- Standard-Room incl. Breakfast:
€ 79,- (Single Room), € 95,- (Double Room)
- Allvitalis-Room incl. Breakfast:
€ 105,- (Single Room), € 129,- (Double Room)

Program Committee

- Karsten Pinkwart, Fraunhofer ICT, Germany (Chairman)
- Peter van den Bossche, Erasmus Hogescholl Brussels, Belgium
- Christian Chimani, Austrian Institute of Technology, Austria
- Roman Christ, Integrated Power Solutions AG, Suisse
- Ludmila Gautier, European Inst. for Energy Research, Germany
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- Jean-Marc Le Peuedic, Dassault Aviation, France
- Oliver Savin, Dassault Aviation, France
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- Sven Schmitz, Duale Hochschule Mannheim, Germany
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- Klaus Raabe, VDE, Germany
- Sophie Weixler, Fraunhofer Allianz Batterien, Germany

PRELIMINARY PROGRAM

WEDNESDAY, SEPTEMBER 17th

	Building 4 Room OG.224	Building 4 Room OG.222a	Building 4 Room OG.222b	Building 3 Lecture Hall	Building 80 Room 105
12:00	Registration of CEEES Delegates Registration of GUS Working Group Participants "Battery Testing"				
13:00	TAB meeting Climatic and air pollution effects Thomas Reichert	TAB meeting Mechanical environment Dave Richards	TAB meeting Reliability & ESS Henri Greszkowiak		AK Battery Testing Karsten Pinkwart
14:30	Coffee break				
15:00	TAB meeting continued	TAB meeting continued	TAB meeting continued	PLOT Workshop	AK Battery Testing continued
17:00	Coffee break				
17:20	Technical Tour A – Environmental Testing Lab		Technical Tour B	Technical Tour C	
17:40	Technical Tour B – Airbag Testing Lab		Technical Tour C	Technical Tour A	
18:00	Technical Tour C – Battery Testing Lab			Technical Tour A	Technical Tour B
18:30	Welcome reception (Entrance and Foyer Building 90)				
21:00	Bus transfer to hotels				

OVERVIEW

THURSDAY, SEPTEMBER 18th

	Building 3 Lecture Hall	Building 4 OG 222a+b (Room "Pfinztal")
08:30	Bus or taxi transfer to Fraunhofer ICT	
09:00	Registration	
09:30	Introduction and opening	
09:45	Plenary Session	
10:45	Coffee break	
11:15	Session A1	Session B1
11:40	Session A2	Session B2
12:05	Session A3	Session B3
12:30	Lunch break	
13:30	Session C1	Session D1
13:55	Session C2	Session D2
14:20	Session C3	Session D3
14:55	Coffee break	
15:20	Session E1	Session F1
15:55	Session E2	Session F2
16:25	Session E3	Session F3
17:00	Closing remarks	
17:30	Bustransfer to hotels or main station	

PROGRAM

THURSDAY, SEPTEMBER 18th

09:30 **Opening and Introduction**

J. Tübke

Fraunhofer ICT, Pfinztal, D

Greetings

H. Roossien

CEEES President, PLOT, NL

09:45 **Plenary Session – KEYNOTES**

**Variance of vehicle drive trains on the way to
CO₂-poor mobility – functional and reliability
testing**

F. Loogen

e-mobile BW GmbH, Stuttgart, D

**Battery energy storage testing for safe
electrification of transport**

L. Boon-Brett, V. Ruiz, J. Ungeheuer, T. Kosmidou,

D. Dams, A. Kriston, N. Lebedeva, A. Pfrang, F. Di Persio

European Commission, DG Joint Research Centre (JRC),

Institute for Energy and Transport (IET), Petten, NL

10:45 **Coffee break**

11:15

A1 Urgent safety issues concerning Li-ion battery home storage systems

O. Wollersheim

Karlsruhe Institute of Technology KIT, Karlsruhe, D

B1 Systematic risk assessment using FMEA-method, applied to a range extender implementation of a stationary fuel cell system into a robot vehicle

A. Keßler, W. Ehrhardt

Fraunhofer ICT, Pfinzthal, D

11:40

A2 The UN-transportation test – a hands on report

R. Hettrich

CETECOM ICT Services GmbH, Saarbrücken, D

B2 eneramic® – The mobile SOFC power generator well on its way to commercialization

J. Baade, S. Reuber, A. Pönicke, C. Wunderlich

Fraunhofer IKTS, Dresden, D

PROGRAM

THURSDAY, SEPTEMBER 18th

12:05 **A3 Battery test lab: innovative ATT solutions for battery testing**

F. Masera

Angelantoni Test Technologies S.r.l., Massa
Martana, I

B3 Testing of materials for SOEC interconnectors at high pressure and high temperature in water vapour and pure oxygen

M. Juez-Lorenzo, V. Kolarik, V. Kuchenreuther

Fraunhofer ICT, Pfinztal, D

C. Geipel, D. Schimanke

sunfire GmbH, Dresden, D

12:30 **Lunch break**

13:30 **C1 Safety and performance testing for automotive batteries**

Y. Aoki, J. Inahara

Espec Corp., Osaka, J

Speaker: K. Higuchi

Espec Europe GmbH, München, D

D1 Heat evolution and temperature increase in Li-ion cells studied by combined electrochemical-calorimetric measurements on Li-ion cells

M. Rohde, C. Ziebert, B. Lei, H. J. Seifert
Karlsruhe Institute of Technology KIT, Institute
for Applied Materials – Applied Materials
Physics IAM-AWP, Eggenstein-Leopoldshafen, D

13:55

C2 Electrical and Mechanical abuse tests on Li-ion pouch cells based on LiFePO_4 and NiCoMn

C. Gutiérrez Couceiro, U. O. Mendoza,
O. M. Crespo
IK4-CIDETEC, Gipuzkoa, E

D2 Gas analysis during abuse tests: A powerful tool to promote safety of Li-ion batteries

M. Abert, M. Krampfert, J. Frohberg, T. Bayha,
K. Pinkwart, J. Tübke
Fraunhofer ICT, Pfinztal, D

PROGRAM

THURSDAY, SEPTEMBER 18th

14:20 **C3 Thermal runaway of commercial 18650 Li-ion batteries with LFP and NCA cathodes, impact of SOC and overcharge**

A.W. Golubkov, S. Scheickl, R. Planteu, A. Thaler
VIRTUAL VEHICLE Research Center, Graz, A
G. Voitic, V. Hacker
Institute of Chemical Engineering and
Environmental Technology, Graz, A

D3 Thermal measurements of Li-ion cells for design of battery cooling systems

M. Miller, T. Berger, K. Pinkwart, J. Tübke
Fraunhofer ICT, Pfinztal, D

14:55 **Coffee break**

15:20 **E1 Appropriate test procedures for optimizing battery module design**

C. Niklas, K. Rajinovic, M. Rudolph, A. Trifonova
AIT Austrian Institute of Technology GmbH,
Wien, A

**F1 Mechanical abuse of charged Li-ion cells
Part I: Methods, testing and analysis**

T. Kisters, F. Wunderlin, P. Matura, R. Külls
Fraunhofer EMI, Efringen-Kirchen, D

15:55

E2 Electrical cell safety testing, taking into account the additional burden in the module or pack

S. Menacher, S. Obpacher, P. Obwegeser, D. Turak
TUEV-SUED Battery Testing GmbH, Garching, D
D. Quinger
Lion Smart GmbH, Garching, D

F2 Modelling and simulation of the thermal behavior of Li-ion cells

A. Melcher, C. Ziebert, M. Rohde, H. J. Seifert
Karlsruhe Institute of Technology (KIT), Institute
for Applied Materials – Applied Materials Physics
IAM-AWP, Eggenstein-Leopoldshafen, D

16:25

E3 Environmental testing of reserve lithium batteries for ammunition

R. van Leeuwen
Thales Cryogenics, Eindhoven, NL

**F3 Mechanical abuse of charged Li-ion cells
Part II: further tests and numerical investigations**

Y. Léost, P. Matura, T. Kisters, B. Schaufelberger,
M. Sauer
Fraunhofer EMI, Efringen-Kirchen, D

PROGRAM

THURSDAY, SEPTEMBER 18th

17:00 **Closing remarks**

17:30 **Bus transfer to hotels**

CEEES DELEGATES PROGRAM

Thursday, September 18th

19:00 Bus or taxi transfer to CEEES Come together

20:00 Come together cocktail

20:30 CEEES Dinner

22:30 Bus transfer to Hotels

Friday, September 19th

08:30 Bus or taxi transfer from Hotel to ICT

09:00 General assembly

10:30 Coffee break

11:00 General assembly

12:00 Handover of the presidency and closure of the CEEES assembly meeting

12:30 Lunch break

14:00 Bus or taxi transfer to hotels or main station Karlsruhe

HOST ORGANIZATIONS

Fraunhofer Institute for Chemical Technology ICT

The Fraunhofer ICT is an institute of the Fraunhofer-Gesellschaft, which is Europe's largest applied research organization. Batteries, fuel cells, electrochemical sensors and analysis systems are the main research topics in the Applied Electrochemistry Department of the Fraunhofer ICT. Comprehensive testing and development methods for fuel cells, batteries and components form part of our service.

| www.ict.fraunhofer.de

Fraunhofer Battery Alliance

Nineteen Fraunhofer institutes have combined their competences in the Fraunhofer Battery Alliance. The competences of the Alliance cover materials, systems, simulation and testing.

| www.batterien.fraunhofer.de

Gesellschaft für Umweltsimulation GUS e.V. (Society for Environmental Engineering)

GUS is the German association of people, institutions and companies who work in environmental engineering and testing. Since 1969, GUS supports the development of environmental engineering on a nonprofit basis.

| www.gus-ev.de

The Confederation of European Environmental Engineering Societies CEEES

CEEES is the umbrella organisation of national technical societies for environmental engineering and testing. CEEES promotes technical advisory boards, seminars and conferences with the support of national member societies.

| www.cee.es.org

FHI – Platform Omgevings-technologie PLOT

PLOT is a Dutch association that is connected to the federation of technology branches FHI and currently has about forty members. Its main task is to promote the development of testing products that function in field conditions according to customer requirements. The Environmental Technology platform (PLOT) was established in 1995.

| www.plot.nl

State Agency for Electric Mobility and Fuel Cell Technology

Baden-Württemberg GmbH

Innovation agency of the State of Baden-Württemberg providing ongoing support for the process of technological and social change to electric mobility.

| www.e-mobilbw.de

CONTACT

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c/o Fraunhofer Institute for Chemical Technology ICT

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