

SCCER-Mobility 1st Annual Conference

Thursday, 11 September 2014 – ETH Zürich, ML E 12

Posters

A1 E-Mobility

Nr.	Title	Authors
1	Lithium-ion battery based energy storage and battery management systems for electric and hybrid vehicles	Alejandro Santis, Andrea Vezzini <i>BFH-CSEM Energy Storage Research Center ESReC, Bern University of Applied Sciences</i>
2	Thermal Management & Crash-Resistance of Lithium-Ion Batteries for Electro & Hybrid Vehicles	Gerhard Rizzo, Alfred Gadola, Max Stöck <i>NTB Interstate University of Applied Sciences of Technology, Buchs</i>
3	E-Mobility & Steer-By-Wire	Gerhard Rizzo, Josef Althaus, Max Stöck <i>NTB Interstate University of Applied Sciences of Technology, Buchs</i>
4	Reliability and Safety of Li-ion batteries for mobile applications	Donat Adams <i>EMPA, Reliability Science and Technology Laboratory</i>
5	Systems and Components for E-Mobility	Olivier Duvanel, Vinzenz V. Härrli <i>Competence Center Integrated, Intelligent and Efficient Energy Systems Hochschule Luzern</i>

A2 Chemical Energy Converters

Nr.	Title	Authors
6	Computer simulation of liquid water saturation in porous media of fuel cells	J. Dujc, L. Capone, J.O. Schumacher <i>Institute of Computational Physics – ICP Zurich University of Applied Sciences - ZHAW</i> J. Biesdorf, P. Boillat <i>Electrochemistry Laboratory – LEC Paul Scherrer Institut – PSI</i>
7	Natural Gas-Diesel Engine	R.Hutter, T.Ott, F.Zurbruggen, C.Onder, L.Guzzella <i>Institute for Dynamic Systems and Control ETH Zürich</i>
8	New fuels and new combustion modes: A path to	C. Brückner, D. Mitakos, St. Schlatter,

	zero emissions / high efficiency mobility systems	K. Boulouchos <i>ETH Zürich, Aerothermochemistry and Combustion Systems Laboratory</i>
9	New fuels and new combustion modes: A path to zero emissions / high efficiency mobility systems	S. Pandurangi, N. Frapolli, M. Bolla, Y. Wright, K. Boulouchos <i>ETH Zürich, Aerothermochemistry and Combustion Systems Laboratory</i>
10	Advanced Water Management Strategies: Gas Diffusion Layers with Patterned Wettability	A. Forner Cuenca, J. Biesdorf, L. Gubler, T. J. Schmidt, P. Boillat <i>Electrochemistry Laboratory – LEC Paul Scherrer Institut – PSI</i>
11	Microscopic modeling of evaporative heat and mass transfer in the diffusion layer of PEFCs	N. I. Prasianakis, R. Sui, I. Mantzaras, <i>Combustion Research Laboratory – CRL, Paul Scherrer Institut – PSI</i> F. N. Büchi <i>Electrochemistry Laboratory – LEC, Paul Scherrer Institut – PSI</i>
12	XTM Imaging of GDLs During Pressure Driven Water Imbibition and Drainage	A. Lamibrac, J. Roth, M. Toulec, , F.N. Büchi <i>Electrochemistry Laboratory – LEC, Paul Scherrer Institut – PSI</i> F. Marone <i>Swiss Light Source – SLS, Paul Scherrer Institut – PSI</i>
13	Spark-induced Emission Spectroscopy	Thomas Kammermann, Wolfgang Kreutner, Patrik Soltic, Christian Bach <i>EMPA, Internal Combustion Engines Laboratory</i>
14	Future Mobility Demonstrator	U. Cabalzar, B. Buchmann, Ch. Bach, M. Brügger <i>EMPA, Laboratory for Internal Combustion Engines</i>

A3 Minimization of Vehicular Energy Demand

Nr.	Title	Authors
15	Thermoplastic composites – industrial opportunities along the value chain	C. Dransfeld, J. Studer <i>Institut für Kunststofftechnik, FHNW Windisch</i>
16	CTI Project: High performance natural fibre thermoplastic composites	C. Dransfeld, K. Masania, A. Bian, E. Kramer <i>Institut für Kunststofftechnik, FHNW Windisch</i> J. Rion, C. Fischer <i>Bcomp Fribourg</i> D. Hegemann <i>EMPA St Gallen</i> A. Van Vuure, C. Fuentes <i>KU Leuven</i>

17 **Non-propulsive Energy Demand of Passenger Cars** **Gil Georges**
ETH Zürich, Aerothermochemistry and Combustion Systems Laboratory

B1 Integration and Optimization

Nr.	Title	Authors
18	Assessing the Housing and Mobility Demand of Households and Associated Environmental Impacts on a Regional Level – A Case Study	Andreas Froemelt, Stefanie Hellweg <i>Chair of Ecological Systems Design, Institute of Environmental Engineering ETH Zurich</i> Dominik Saner <i>Politics and Social Responsibility, Post CH Ltd.</i>
19	Infrastructure and Policy Design for Electric Vehicles	Rashid A. Waraich and Kay W. Axhausen <i>Institute for Transport Planning and Systems, ETH Zurich</i>
20	Integration of new Urban Transport	Olivier Duvanel, Vinzenz V. Härrli <i>Competence Center Integrated, Intelligent and Efficient Energy Systems Hochschule Luzern</i>
21	Energy Efficient Strategies for Freight Rail Operations	Valerio De Martinis, Mahnam Saeednia, Dirk Bruckmann, Ulrich A. Weidmann <i>Institute for Transport Planning and Systems ETH Zürich</i>
22	GoEco! A Community based eco-feedback approach to promote sustainable personal mobility styles	Roman Rudel, Francesca Cellina <i>University of Applied Sciences and Arts of Southern Switzerland SUPSI Institute for Applied Sustainability to the Built Environment ISAAC</i> Paul Weiser, Martin Raubal, Simon Scheider <i>ETH Zurich Institute of Cartography and Geoinformation Chair of Geoinformation Engineering</i>

B2 Integrated Assessment of Mobility Systems

Nr.	Title	Authors
23	Transformation of Mobility Context Perspective	Merja Hoppe, Alberto Castro <i>ZHAW Winterthur, School of Engineering Institute of Sustainable Development</i>
24	Systemic Technology Assessment in Electric Mobility	Gil Georges <i>Aerothermochemistry and Combustion Systems Laboratory, ETH Zürich</i>
25	Environmental and cost comparison of personal transportation powertrains	Brian Cox, Johannes Hofer, Christian Bauer <i>PSI, Laboratory for Energy System Analysis</i>
26	e-mobilitI A living lab to investigate the transition towards electric mobility	Roman Rudel, Francesca Cellina <i>University of Applied Sciences and Arts of Southern Switzerland SUPSI Institute for Applied Sustainability to the Built Environment ISAAC</i>

Management Office

Nr.	Title	Authors
27	Roadmap	Gloria Romera, Michael Bürgi <i>SCCER-Mobility, Management Office</i>