

Similarities & Differences

Fuel Cells - Redox Flow Batteries

Keynotes & Expert Discussions in
Special Session

KKL, Lucerne, Switzerland
July 7, 2017, 10.00-16.00

As electrochemical reactors, Redox Flow Batteries (RFB) display certain similarities with low temperature Polymer Electrolyte Fuel Cells (PEFCs), but also differences. The aim of this special session is to outline these similarities and differences. Leading stakeholders will present their most recent progress in RFB-technologies and its scientific aspects. Participants will profit from this high-level exchange and can contribute their experiences in the field and propose expectations for future common R&D in intensive discussions.

Registration*

www.EFCF.com/RFB; RFB@EFCF.com

* Free for EFCF participants

Special Session only: 250.- CHF incl. refreshments, business lunch, documents, access to exhibition & poster area;



Programme/Speakers - July 7, 2017

Similarities & Differences: FC - Redox Flow Batteries I+II

Chaired by:

Günther G. Scherer (ex PSI)
Olaf Conrad & Jochen Friedl

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|-------|---|--|--|
| 11.00 | PEM Fuel Cells and Redox Flow Batteries Differences, similarities and common problems | Rüdiger Schweiss | SGL Carbon GmbH, Meitingen/Germany |
| 11.30 | Methods to limit shunt currents in the Vanadium-Redox-Flow-Batteries (VRFB) | Adam H. Whitehead | GILDEMEISTER energy storage GmbH, Wiener Neudorf/Austria |
| 12.00 | Catalytic Properties of Carbon in the All-Vanadium-Redox Flow Batteries (aVRFB) | Jochen Friedl, Ulrich Stimming | School of Chemistry, Newcastle Uni., Newcastle upon Tyne/UK |
| 13.30 | All-Polymer Redox Flow Batteries (aPRFB) | Olaf Conrad | JenaBatteries GmbH, Jena/Germany |
| 14.00 | Progress in miniaturized Redox Flow Batteries | Patrick Ruch (1), Neil Ebejer (1), Julian Marschewski (2), Lorenz Brenner (2), Kleber Marques Lisboa (2), Dimos Poulidakos (2), Bruno Michel (1) | (1) IBM Research - Zurich, (2) ETH Zürich, Zuerich/Switzerland |
| 14.30 | Electrolytes for bromine/bromide cathode in hydrogen-bromine Redox Flow Battery (RFB) | Michael Küttinger, Paulette Loichet, Emeline Meyer, Peter Fischer, Karsten Pinkwart, Jens Tübke | Applied Electrochemistry, Fraunhofer Institute for Chemical Technology, Pfinztal/Germany |
| 14.45 | Local characterization and 3D simulation of mass transport issues in Vanadium Redox Flow Batteries | Matteo Zago, Mirko Messaggi, Claudio Rabissi, Andrea Baricci, Riccardo Mereu, Fabio Inzoli, Andrea Casalegno | Politecnico di Milano, Dep. of Energy, Milan/Italy |
| 15.00 | Design and up scaling of a AQDS-bromine based Redox Cell | Luigi Crema (1, 2), Simone Amicabile (1), Matteo Testi (1) | (1) Fondazione Bruno Kessler, (2) Green Energy storage, Trento/Italy |
| 15.40 | New materials, methods & concepts for Hydrogen Fuel Cells | Hubert Gasteiger | Technical Electrochemistry, Technical University of Munich, Garching/Germany |

Summary & Discussion on future common Exchange-Activities FC-RFB

www.EFCF.com/RFB

