

WORKSHOPS "MATERIALS FOR ENERGY"

November 18–19, 2019

Fraunhofer IWS, Winterbergstrasse 28, 01277 Dresden

NOV 18, 2019

WORKSHOP "CARBON ELECTRODE MATERIALS"

- 08:30 Registration

Session I Trends in carbon material development

Chair: Prof. Dr. Stefan Kaskel, Fraunhofer IWS, TU Dresden

- 09:00 Welcome and opening
Stefan Kaskel, Fraunhofer IWS, TU Dresden, Germany
- 09:15 Electrochemistry in nanoporous carbons: understanding ion adsorption/transfer in supercapacitor electrodes
Patrice Simon, Université Paul Sabatier, France
- 10:00 ULTRA-LONG carbon nanotube non-woven mats as a light weight platform for battery applications
Stas Kozachkevich, Tortechnanofibres, Israel
- 10:30 Coffee break
- 11:00 Ultra-fast carbon electrodes made of functionalized vertically-aligned nanotubes and their applications to power and energy storage devices
Pascal Boulanger, NAWA Technologies, France
- 11:30 Carbon for reliable Lithium-Sulfur Batteries
Feng Li, Chinese Academy of Science, China
- 12:00 Adapting carbons for cathodes and anodes in Li batteries
Susanne Dörfler, Fraunhofer IWS, Germany
- 12:30 Lunch break

Session II Applications in energy storage & conversion

Chair: Dr. Holger Althues, Fraunhofer IWS

- 13:45 Carbon materials for ultracapacitors: Requirements and developments
Sebastian Pohlmann, Skeleton Technologies GmbH, Germany
- 14:15 Application-driven cathode design for high energy and high power Li-S batteries
Chris Cook, OXIS Energy Ltd, UK
- 14:45 Carbons for salt conversion based electrodes
Andras Kovacs, BroadBit Batteries, Finland
- 15:15 Coffee break
- 15:45 Development of activated carbon for high-energy density supercapacitor
Fengliu Lou, Beyonder AS, Norway
- 16:15 Concluding remarks
Stefan Kaskel, Fraunhofer IWS, TU Dresden, Germany

- 16:30–18:00 Lab Tour @ Fraunhofer IWS
- 18:00–21:00 Poster Session & Get Together

The events address participants of both workshops.



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WORKSHOP "LITHIUM-METAL ANODES"

- 08:30 Registration
- 09:00 Welcome and opening
Stefan Kaskel, Fraunhofer IWS, TU Dresden, Germany

Plenary

- 09:15 Lithium-Metal Anodes: A historical perspective of performance and safety
Klaus Brandt, Consultant, Germany

Session I Lithium raw materials: resources and refinement

Chair: Prof. Dr. Stefan Kaskel, Fraunhofer IWS, TU Dresden

- 10:00 Zinnwald-Lithium-Project: Status and future development
Armin Müller, Deutsche Lithium GmbH, Germany
- 10:30 Lithium metal for secondary Li-batteries: challenges and improvements
Ulrich Wietelmann, Albemarle Germany GmbH, Germany

- 11:00 Coffee break

Session II Lithium metal processing

Chair: Dr. Holger Althues, Fraunhofer IWS

- 11:30 Rolling mills for lithium metal foil production
Stephen Tighe, Bühler Redex GmbH, Germany
- 12:00 Enabling improved battery performance for high volume manufacturing
Roland Trassl, Applied Materials, Germany
- 12:30 Melt deposition of thin lithium films for next-generation batteries
Benjamin Schumm, Fraunhofer IWS, Germany

- 13:00 Lunch break

Session III Lithium-metal battery cells: design, safety and application

Chair: Dr. Benjamin Schumm, Fraunhofer IWS

- 14:15 Lithium: Protection, modification and the use in different battery systems
Peter Maria Bieker, Universität Münster, Germany
- 14:45 Development and roll-to-roll production of solid-state Li metal cells
Pu Zhang, Solid Power, USA
- 15:15 Coffee break
- 15:45 Lithium electrodes for high performance Li-S batteries
Jokin Rikarte, OXIS Energy Ltd, UK
- 16:15 Concluding remarks
Stefan Kaskel, Fraunhofer IWS, TU Dresden, Germany