

### 3<sup>rd</sup> Dresden conference »Energy in Future - Materials for Energy«

Day 1 (Tuesday, 10.11.15)

#### Preliminary program

09:00	Opening (room 4 / 5)		
Plenary Session	Opening	Prof. Dr. Eckhard Beyer, Fraunhofer IWS Dresden, TU Dresden, Institute of Manufacturing Technology	
09:10	Welcome address	UWE Gaul, Secretary of State in the Ministry of Science and Art	
09:20	Energy efficiency policies of the Federal Government: current achievements and next steps	Dr. Thorsten Herdan, Director General Energy, Federal Ministry of Economic Affairs and Energy	
09:45	Energy efficiency of industrial heat recovery systems – pivotal role of heat exchanger technology	Dr. Vishwas V Wadekar, Research Director Process Industry Exchangers, PS2E Institute Centre de Recherche Claude – Delorme (CRCD), Jouy-en-Josas, France	
10:15 - 10:55 (40 min)	Coffee break		
10:55	German and international development trends of energy supply	Prof. Dr. Hardo Bruhns, Deutsche Physikalische Gesellschaft, Vorsitzender des Arbeitskreises Energie	
11:20	Steps towards energy revolution	Dr. René Umlauf	
11:45	Plenary talk: Energy Storage	NN	
12:10 - 13.40 (90 min)	Lunch, exhibition and poster session		
13:40	Energy conversion (room 4)	Energy Storage (room 1)	Energy efficiency (room 5)
Session	Energy for Smart Cities I	Mobile energy storage	OLED
Chair	Dr. Robert Franke Energy Saxony e. V.	Prof. Dr. Stefan Kaskel / Dr. Holger Althues, TU Dresden, Fraunhofer Institut Werkstoff- und Strahltechnik IWS	Jun.-Prof. Dr. Sebastian Reineke TU Dresden Institut für Angewandte Photophysik
13:20 - 15:00	Energy for Smart Cities – The future landscape Dr. Philipp Hoff, Roland Berger Strategy Consultants	Si-Anodes for high energy Li-Ion Dr. Denis Trögel, Wacker Chemie AG	OLED Lighting - Research Promise and Manufacturing Challenge Dr. John W. Hammer, OLEDWorks, Rochester, USA
	Fuel Cell Technology for Grid Support, Storage and Hydrogen Infrastructure Chip Bottone, FuelCell Energy, Inc., Danbury, CT, USA	Separators for Li-Ion-Batteries Prof. Yoshitake, Yamagata University, Japan	Iridium-free OLED solutions for the whole color spectrum Dr. Thomas Baumann CYNORA GmbH
	Reversible SOC – Storage and Supply in one unit Christian von Olshausen, Sunfire GmbH	High-Power-Li-Ion-Batteries Dr. Benjamin Schumm, Fraunhofer Institut Werkstoff- und Strahltechnik IWS	OLED Lighting: Status and Perspectives Dr. Andreas Rausch OSRAM OLED GmbH
	Organic solar films for BiPV applications prepared by vacuum roll-to-roll production Martin Pfeiffer, Heliatek GmbH		Advanced outcoupling schemes for organic light-emitting diodes Dr. Simone Hofmann TU Dresden, Institut für Angewandte Photophysik
15:00 - 15:30 (30 min)	Coffee break and exhibition		
Session	Energy for Smart Cities II	Stationary energy storage	Materials for Energy I
Chair	Christian von Olshausen Sunfire GmbH	Prof. Dr. Stefan Kaskel / Dr. Holger Althues, TU Dresden, Fraunhofer Institut Werkstoff- und Strahltechnik IWS	Prof. Dr. Gert Heinrich, Leibniz Institute of Polymer Research Dresden IPF
15:30 - 16:50	Energy Efficient Facility Management Dietmar Lauter, WISAG Gebäude- und Industrieservice Mitteldeutschland GmbH & Co. KG	Large scale storage Dr. Ina Hahndorf, Younicos AG	Use of Layered Double Hydroxides in energy applications Regine Boldt, Lena Neff, Dr. Andreas Leuteritz, Leibniz Institute of Polymer Research
	Urban Lighting – Energy Efficiency and Lighting Quality Sebastian Hesse, NARVA Lichtquellen GmbH + Co. KG	Redox-Flow-Batteries Dr. Jens Tübke, Fraunhofer-Institut für Chemische Technologie	Fatigue of Composite Materials and Structures for Rotor Blades Prof. Jens Ridzewski, IMA Materialforschung und Anwendungstechnik GmbH
	Integration of energy systems for distributed level applications Dr. Luigi Crema, Fondazione Bruo Kessler, Trento, Italy		Large area direct fabrication of periodic surfaces patterns for high efficient devices Prof. Dr. Andrés F. Lasagni et al. Fraunhofer Institut Werkstoff- und Strahltechnik IWS
	Solar District Heating: Efficient and Zero CO <sub>2</sub> Emission Reinhold Weiser, AkoTec Produktionsgesellschaft mbH		Materials in electrical machines under the increasing requirements of energy efficiency classification Sören Miersch, Prof. Norbert Michalke, Hochschule für Technik und Wirtschaft Dresden, Fakultý of Electrical Engineering
16:50 - 18:00	Postersession		
19:00 - 23:00	DRESDEN concept Networking		

\* Energy storage (room 1): talks in English, no simultaneous translation provided  
Please note that it is a preliminary version of the program.

### 3.<sup>rd</sup> Dresden conference »Energy in Future - Materials for Energy«

Day 2 (Wednesday, 11.11.15)

#### Preliminary program

08:30	Plenary session (room 4 / 5)		
08:30	<b>Grid development – a major challenges</b>	Dr. Werner Götz, member of the executive board of TransnetBW GmbH	
08:55		NN	
09:20		<b>Overview on post-Li-Ion batteries</b> Prof. Doron Aurbach, Bar-Ilan University, Israel	
9:45 - 10:20 (35 min)	Coffee break and exhibition		
10:20	Energy conversion (room 4)	4 <sup>th</sup> Workshop »Lithium-sulfur batteries« (Saal1)	Energy efficiency (room 5)
Session	Materials for Energy II	Materials	Industrial processes
Chair	Prof. Dr. Jürgen Eckert / Dr. Lars Giebeler Leibniz Institute for Solid State and Materials Research Dresden IFW	Prof. Dr. Stefan Kaskel / Dr. Holger Althues, TU Dresden, Fraunhofer Institut Werkstoff- und Strahltechnik IWS	Dr. Gunter Gerbeth Helmholtz-Zentrum Dresden-Rossendorf
10:20 - 11:40	Fuel cell catalysts: In-situ methods for advanced materials design Prof. Dr. Christina Roth, Freie Universität Berlin, Institute of chemistry and biochemistry	New material concepts for Li-S batteries Dr. Quiang Zhang, Tsinghua University, China	Energy efficiency via process intensification and optimal fluid dynamics Prof. Dr. Uwe Hampel, Helmholtz-Zentrum Dresden-Rossendorf
	Study of electrodes and electrodes/electrolyte interfaces of Solid oxide Fuel Cell (SOFC): identification of mechanism of reaction and degradation by using electrochemical impedance spectroscopy and electron microscopy Prof. Dr. Alberto Caneiro vom Instituto Balseiro, Centro Atómico Bariloche/ARG		Energy Efficiency by Miniaturization: Basics and Applications Dr. Jürgen Brandner, Karlsruher Institut für Technologie KIT
	Energy storage and logistics in Liquid Hydrogen Carriers (LOHC) Dr. Daniel Teichmann Hydrogenious Technologies GmbH		Aluminum electrolysis as a storage for volatile renewable energies Dr. Till Reek, TRIMET Aluminium SE
	State-of-the-art laser material processing for manufacturing of low loss electrical machines Dr. Andres Wetzig, Prof. Dr. Eckhard Beyer Fraunhofer IWS, TU Dresden, Institut für Fertigungstechnik		Energy efficiency measures and actions – Norwegian perspective Prof. Dr. Peter E. Rokke, SINTEF, Norwegen
11:40 - 13:10 (90 min)	Lunch, exhibition and poster sessiom		
Session	Future Materials and Technologies for Smart City Application I	Cell development	Mobility
Chair	Dr. Mareike Wolter, Group leader Fraunhofer-Institut für Keramische Technologien und Systeme (IKTS), Dresden	Prof. Dr. Stefan Kaskel / Dr. Holger Althues, TU Dresden, Fraunhofer Institut Werkstoff- und Strahltechnik IWS	Prof. Dr. Matthias Klingner Fraunhofer-Institut für Verkehrs- und Infrastruktursysteme IVI, TU Bergakademie Freiberg
	Combined heat and power – a proven technology for a low emission future Dr. Rutger Kretschmer, DREWAG -Stadtwerke Dresden GmbH, ENSO Energie Sachsen Ost AG	New material concepts for Li-S cells Dr. Holger Althues, Fraunhofer Institut Werkstoff- und Strahltechnik IWS	Elektrische Antriebe in der Landtechnik Prof. Dr. Thomas Herlitzius, TU Dresden, Institut für Verarbeitungsmaschinen und Mobile Arbeitsmaschinen
	Paper based energy storage devices Prof. Leif Nyholm, University of Uppsala, Sweden	Li-S cell development at Oxis energy Dr. Sebastian Liatard, OXIS Energy Ltd., UK	EDDA-Bus – A practical example for fast charging battery buses Dr. Thoralf Knot, Fraunhofer-Institut für Verkehrs- und Infrastruktursysteme
	Stationary Energy Storage for Commercial Applications Prof. Dr. Michael Stelter, Fraunhofer-Institut für Keramische Technologien und Systeme IKTS		Velicoté - exklusives Pedelec für den urbanen Verkehr Dr. Ulrich Potthoff, Fraunhofer-Institut für Verkehrs- und Infrastruktursysteme IVI
	Real operation of energy storage systems in low-voltage grids Prof. Dr. Mirko Bodach, Westsächsische Hochschule Zwickau, Professur Elektrische Energietechnik / Regenerative Energien		Efficient flux control of a squirrel-cage rotor traction drive Prof. Dr. Jana Kertzscher, TU Bergakademie Freiberg
14:30 - 15:00 (30 min)	Coffee break and exhibition		
Session	Future Materials and Technologies for Smart City Application II	Applications	Energy transmission
Chair	Sebastian Hesse, Product manager NARVA Lichtquellen GmbH + Co. KG	Prof. Dr. Stefan Kaskel / Dr. Holger Althues, TU Dresden, Fraunhofer Institut Werkstoff- und Strahltechnik IWS	Prof. Dr. Peter Schegner TU Dresden, Institute of Electrical Power Systems and High Voltage Engineering
15:00 - 16:20	Hydrogen-on-demand generators for fuel cell power systems Dr. Marcus Tegel, Fraunhofer-Instituts für Fertigungstechnik und Angewandte Materialforschung IFAM	RT-Na-S for stationary application Michael Kohl, Fraunhofer Institut Werkstoff- und Strahltechnik IWS	Optimization of electrical network utilization using thermal storages Tobias Hess, Jens Werner, TU Dresden Institut für Elektrische Energieversorgung und Hochspannungstechnik
	Energy utilization of novel energy carriers Dr. Stefan Voß, TU Bergakademie Freiberg	Electrodes for Li/S batteries in automotive applications Prof. Andreas Hintennach, Daimler AG / Li-Tec	Modular Grids: Grid-supporting operation of decentralized energy storage systems Tobias Schnelle, Mitteldeutsche Netzgesellschaft Strom mbH
	Solar Thermal Systems – Potentials, Possibilities and Limitations Dr. Karin Rühling, TU Dresden, Institut für Energietechnik	Li-S batteries for space applications Valery Gineste, Airbus Defence and Space, Toulouse, France	Analysis of the future transmission demand for a renewable energy supply Niels Erdmann, Boysen-TU Dresden-Graduiertenkolleg
	Ice slurry - smart cooling for smart cities Dr. Mathias Safarik, Institut für Luft- und Kältetechnik		Challenges for materials in district heat supply Dr. Andreas Leuteritz, Leibniz-Institut für Polymerforschung Dresden
17:00	Lab tours (bus transfer)		

\* Energy storage (room 1): talks in English, no simultaneous translation provided  
Please note that it is a preliminary version of the program.