

Chemistry & Materials for Lead-Based Batteries 2017

Held at AABC Europe 2017

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31 January 2017

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at the address below.

Cambridge EnerTech
Cambridge Innovation institute
250 First Avenue
Suite 300
Needham, MA 02494
USA

Phone: 781-972-5400
Fax: 781-972-5425

ce@cambridgeenertech.com

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LEAD-BASED

R&D SYMPOSIUM 5

Chemistry & Materials for Lead-Based Batteries

31 January 2017 | Congress Centrum Mainz | Mainz, Germany

Part of the 7th Advanced Automotive Battery Conference Europe

TUESDAY, 31 JANUARY

TECHNOLOGY & INNOVATION: DCA VS. HIGH TEMPERATURE DURABILITY

- 7:30** **Symposium Registration and Morning Coffee**
- 8:30** **Chairperson's Opening Remarks**
Eckhard Karden, Ph.D., Technical Expert Battery & Energy Storage Technology, Advanced Power Supply & Energy Management, Ford Research & Advanced Engineering, Europe
- 8:35** **How Harmful Are Carbons in EFB for High Temperature Use Cases? 1**
Eckhard Karden, Ph.D., Technical Expert Battery & Energy Storage Technology, Advanced Power Supply & Energy Management, Ford Research & Advanced Engineering, Europe
- 8:55** **Water Consumption Testing and Analysis 6**
Dirk Uwe Sauer, Ph.D., Professor and Chair, Electrical Engineering and Information Technology Department, RWTH Aachen University, Germany
- 9:15** **Tailored Carbon Additives to Meet Requirements for High DCA and Low Water Loss – Wish and Reality 16**
Jochen Settlein, Ph.D., Research Scientist, Center for Applied Electrochemistry, Fraunhofer Institute for Silicate Research ISC

TECHNOLOGY & INNOVATION: NEW BATTERIES

- 9:35** **A New Generation AGM Batteries with Enhanced Carbon Additive for μ -Hybrid Application 26**
Olaf Sielemann, Director, Transportation R&D Europe, Exide
- 9:55** **Q&A**
- 10:10** **Grand Opening Coffee Break with Exhibit & Poster Viewing**
- 11:00** **Chairperson's Remarks**
Eckhard Karden, Ph.D., Technical Expert Battery & Energy Storage Technology, Advanced Power Supply & Energy Management, Ford Research & Advanced Engineering, Europe
- 11:05** **The 2nd Gen UltraBattery for Advanced 14-V hybrids 34**
Jun Furukawa, Ph.D., Senior Fellow, The Furukawa Battery Co., Ltd.
- 11:25** **Dynamic Charge Acceptance (DCA) to Improve the Real World Emission Performance of Micro Hybrid Vehicles 44**
Stewart McKenzie, CEO, ArcActive

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ADVANCED LEAD-BASED BATTERIES R&D ROADMAP

- 11:45** **There Is a Lot of Life Left in Lead – Overview on Automotive Battery Market Trends, Battery Field Experience & Lifetime and Future Development Potential of Start-Stop Batteries 65**
Christian Rosenkranz, Ph.D., Vice President, Engineering & Product Development EMEA, Johnson Controls Autobatterien GmbH
Jörn Albers, Ph.D., Systems and Simulation Engineer, Johnson Controls Autobatterien GmbH



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12:05 **Production Quality of Advanced LABs – Fulfilling the Zero Failure Approach** **79**
Andreas O. Stoermer, General Manager QMT Alternative Powertrains, BMW Group

12:25 **Lead-Acid Batteries for Future Automobiles** **85**
Juergen Garcke, Ph.D., Senior Professor, Ulm University

12:45 **Q&A**

13:00 **Networking Lunch**

14:15 **Dessert Refreshment Break with Exhibit & Poster Viewing**

ADVANCED LEAD-BASED BATTERIES R&D ROADMAP (CONT.)

15:00 **Chairperson's Remarks**
Christian Rosenkranz, Ph.D., Vice President Engineering & Product Development EMEA, Johnson Controls Autobatterien GmbH

15:05 **GS Yuasa's 5th Generation Flooded Lead-Acid Battery Technology for Stop and Start Vehicles** **109**
Satoshi Inagaki, Global Technical Headquarters, Automotive Battery Technical Department, GS Yuasa International Ltd.

15:25 **2030 Battery R&D Roadmap for Hybridization and E-Mobility** **120**
Rene Schroeder, Deputy & EU Affairs Manager, Association of European Automotive and Industrial Battery Manufacturers

15:45 **Recent Advancements in Automotive Lead Batteries and the 2016-2018 ALABC Program Aimed at Further Improvements in Lead Battery Performance** **130**
Boris Monahov, Ph.D., Program Manager, Advanced Lead-Acid Battery Consortium (ALABC) – a program of the International Lead Association (ILA)
Alistair Davidson, Ph.D., Director-Products and Sustainability, International Lead Association

16:05 **PANEL DISCUSSION: Automotive Lead-Acid: An Endangered Species? Can Innovation Help and Where?** **N/A**
Moderator:
Dirk Uwe Sauer, Ph.D., Professor and Chair, Electrical Engineering and Information Technology Department, RWTH Aachen University, Germany
Panelists:
Eckhard Karden, Ph.D., Technical Expert, Battery & Energy Storage Technology, Advanced Power Supply & Energy Management, Ford Research & Advanced Engineering, Europe
Christian Rosenkranz, Ph.D., Vice President, Engineering & Product Development EMEA, Johnson Controls Autobatterien GmbH
Rene Schroeder, Deputy & EU Affairs Manager, Association of European Automotive and Industrial Battery Manufacturers
Boris Monahov, Ph.D., Program Manager, Advanced Lead-Acid Battery Consortium (ALABC) – a program of the International Lead Association (ILA)

17:05 **Networking Reception with Exhibit & Poster Viewing**

18:05 **Close of Day**

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