

LECTURE PROGRAMME

Thursday, 23 February 2017

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09:00	Registration
10:00	Welcome Address G. Sextl ¹ ; ¹ Fraunhofer-Institut für Silicatforschung – ISC, Würzburg/D

MATERIALS FOR FUEL-CELL TECHNOLOGY

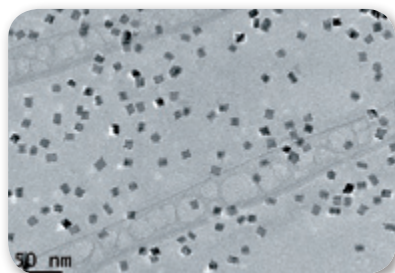
Chair: W. Mueller, Umicore AG & Co. KG, Hanau/D

10:10	PLENARY LECTURE Electromobility – Batteries or fuel cells? H. Gasteiger ¹ ; ¹ TU München, Garching/D	13
10:55	Daimler fuel cell activities – From materials research to vehicle launch C. Mohrdieck ¹ ; G. Frank ¹ ; ¹ Daimler AG, Kirchheim/D	14
11:25	Nanostructured catalyst materials for PEM fuel cells P. Strasser ¹ ; ¹ Technische Universität Berlin/D	15
11:55	Pt on carbon black electro catalysts – A view from industrial perspective D. Herein ¹ ; ¹ UMICORE AG & Co. KG, Hanau/D	16
12:25	Lunch Break and Poster Viewing	

MATERIALS FOR FUEL-CELL TECHNOLOGY

Chair: F. Menzel, Evonik Industries AG, Hanau/D

13:25	Mesostructured cobalt oxides based materials for oxygen evolution reaction H. Tüysüz ¹ ; X. Deng ¹ ; ¹ MPI für Kohlenforschung, Mülheim an der Ruhr/D	17
13:50	Field-assisted sintering of nanostructured La_xSr_{1-x}TiO₃ as potential anode material for solid oxide fuel cells B. Kayaalp ¹ ; K. Klauke ¹ ; A. Iannaci ² ; V. Sglavo ² ; S. Mascotto ¹ ; ¹ University of Hamburg/D; ² University of Trento/I	18
14:15	Coffee Break and Poster Viewing	



Picture source (left to right): A. Karpov, BASF SE, Ludwigshafen/D; R. Busch, Universität des Saarlandes, Saarbrücken/D

LECTURE PROGRAMME

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HETEROGENEOUS CATALYSTS FREE OF PRECIOUS METALS I

Chair: K. Schierle-Arndt, BASF SE, Ludwigshafen/D

14:30	Strategies to reduce precious group metal loading in emission control catalysts A. Karpov ¹ ; K. Wassermann ² ; P. Tran ² ; S. Choi ³ ; Y. Xia ³ ; ¹ BASF SE, Ludwigshafen/D; ² BASF Corporation, Iselin, NJ/USA; ³ Georgia Institute of Technology, Atlanta, GA/USA	19
15:00	New strategy for synthesis of supported Cu-Fe nanoparticles via single-source precursor method S. Linke ¹ ; J. Bauer ¹ ; X. Huang ² ; R. Naumann d'Alnoncourt ¹ ; M. Driess ¹ ; F. Rosowski ³ ; ¹ BasCat - UniCat BASF JointLab, Technische Universität Berlin, Berlin/D; ² Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin/D; ³ BASF SE, Process Research and Chemical Engineering, Ludwigshafen/D	20
15:25	APPtéc – a new generation of spray pyrolysis technology to produce advanced catalysts L. Leidolph ¹ ; T. Jähnert ¹ ; ¹ Glatt Ingenieurtechnik GmbH, Weimar/D	21
15:50	Coffee Break and Poster Viewing	

GLASS AS INNOVATIVE MATERIAL FOR HIGH-TECH APPLICATIONS

Chairs: G. Sextl, Fraunhofer-Institut für Silicatforschung – ISC, Würzburg/D
D. Scheschkewitz, Universität des Saarlandes, Saarbrücken/D

16:20	Perspective on ultrahigh performance solid-liquid catalysis with silica and glass based monoliths U. Tallarek ¹ ; ¹ Universität Marburg/D	22
16:55	Purity and precision – Novel fused silica applications A. Hofmann ¹ ; ¹ Heraeus Quarzglas GmbH & Co KG, Kleinostheim/D	23
17:25	Bulk metallic glass: A new engineering material R. Busch ¹ ; ¹ Universität des Saarlandes, Saarbrücken/D	24

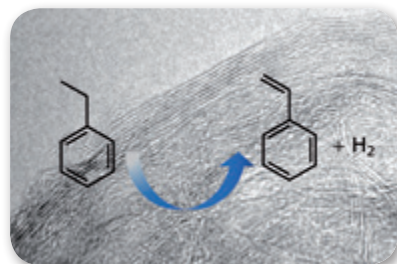
SPECIAL LECTURE

Chair: G. Sextl, Fraunhofer-Institut für Silicatforschung – ISC, Würzburg/D

17:55	Nanomaterials hoax scientists: Nanosafety research on the right track? H. Krug ¹ ; ¹ Empa - Swiss Federal Laboratories for Materials Science and Technology, St. Gallen/CH	25
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09:00	Learning lessons from carbon nanomaterials to prepare novel carbon based catalysts for dehydrogenation reactions J. Gläsel ¹ ; J. Diao ² ; Z. Feng ² ; M. Hilgart ¹ ; T. Wolker ¹ ; D.S. Su ² ; B.J.M. Etzold ¹ ¹ TU Darmstadt/D; ² Shenyang National Laboratory for Materials Science/PRC	26
09:30	Application of precious-metal free immobilized polyoxometalate catalysts J. Albert ¹ ; A. Bukowski ¹ ; ¹ FAU Erlangen-Nürnberg, Erlangen/D	28
09:55	Renewable energy as the driving force towards electrocatalysis L. Vieira ¹ ; T. Gärtner ¹ ; L. Csepei ¹ ; F. Steffler ¹ ; V. Sieber ¹ ; ¹ Fraunhofer IGB, Straubing/D	30
10:25	Coffee Break and Poster Viewing	
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11:45	High sensitivity nanoscale characterization of inorganic materials by local electrode 3D atom probe microscopy U. Rohrmann ¹ , K. Güth ¹ , O. Gutfleisch ^{1,2} , R. Stauber ¹ ; ¹ Fraunhofer Project Group IWKS, Alzenau/D, Fraunhofer ISC, Würzburg/D, ² Technical University of Darmstadt/D	32
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<i>Chair: G. Sextl, Fraunhofer-Institut für Silicatforschung – ISC, Würzburg/D</i>		
12:40	Award Ceremony for the BestPoster Award and Closing Remarks	
13:00	End of the Programme – Possibility to have lunch at DECHEMA at own costs	



Picture source (left to right): B.J.M. Etzold, TU Darmstadt/D; D. Miller, MPI for the Structure and Dynamics of Matter, Hamburg/D

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