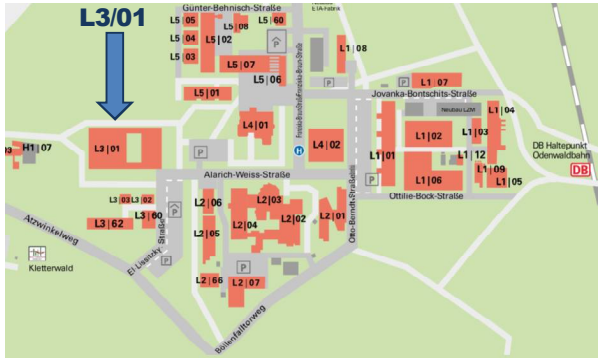
Materials Day 2016 - Ceramics for Energy

Program

8:15 - 8:45	Registration
8:45 - 9:00	Welcome Address
9:00 - 9:30	**Prof. (Peizhen) Kathy Lu**, Virginia Tech, "*Study of Cathodes and Interconnect Coatings for Solid Oxide Fuel Cells*"
9:30 - 10:00	**Prof. Matthias Oechsner**, TU Darmstadt, "*Current Status and Future Perspectives of Thermal Barrier Coatings for Thermal Power Applications*"
10:00 - 10:30	**Prof. Rajendra Bordia**, Clemson University "*Analysis and Simulation Guided Processing of Hierarchical Porous Ceramics*"
10:30 - 11:00	*COFFEE BREAK*
11:00 - 11:30	**Prof. Yuichi Ikuhara**, University of Tokyo, "*Atomic Resolution STEM Characterization of Li Ion Battery Related Crystals*"
11:30 - 12:00	**Prof. Peter Kroll**, University of Texas at Arlington, "*Mechanisms and Design of SiOC Anodes for Lithium-Ion Batteries*"
12:00 - 12:30	**Prof. I-Wei Chen**, University of Pennsylvania, "*Mesoporous Graphene for Energy Applications*"
12:30 - 14:00	*LUNCH BREAK*
14:00 - 14:30	**Prof. Aleksander Gurlo**, TU Berlin, *t.b.a.*
14:30 - 15:00	**Dr. Andreas Zerr**, Université de Paris 13, "*High-Pressure Nitrides of the Group 4 and 14 Elements as Potential Materials for Energy Applications*"
15:00 - 15:30	**Prof. Pavol Sajgalik**, Slovak Academy of Sciences, "*Additive-Free Hot-Pressed Silicon Carbide Ceramics – A Material with Exceptional Properties*"
15:30 - 16:00	*COFFEE BREAK*
16:00 - 16:30	**Dr. Isabel Kinski**, IKTS Dresden, *t.b.a.*
16:30 - 17:00	**Prof. Isao Tanaka**, Kyoto University, "*Accelerated Discovery of Ceramics for Energy with First Principles Datasets and Learning Techniques*"
17:00 - 17:30	**Prof. Walter Krenkel**, Universität Bayreuth, "*Ceramic Matrix Composites: At the Threshold of Energy-Related Applications*"
17:30 - 18:00	*Laudatio* for Prof. Riedel
18:00 - 18:15	Closing Remarks
18:30	Dinner

Venue: Technische Universität Darmstadt, Faculty of Architecture, Bdg. L3/01, Hall 93, El-Lissitzky-Str. 1, D-64287 Darmstadt



Please send *as late as on March 15* an email to cenergy2016@materials.tu-darmstadt.de to register your participation to the

- ☐ Symposium on April 29, 2016
  and/or
- ☐ Dinner on April 29, 2016

MATERIALS DAY 2016

CERAMICS for ENERGY

CENERGY

[synergy]

On the occasion of the 60th Birthday of Prof. Ralf Riedel

Disperse Feststoffe

TECHNISCHE UNIVERSITÄT DARMSTADT

Date: April 29, 2016

Venue: Technische Universität Darmstadt, Faculty of Architecture, Building L3/01, Hall 93, El-Lissitzky-Str. 1, D-64287 Darmstadt

Local Organizers:

Dr. Emanuel Ionescu
Prof. Wolfgang Donner

Materials Day 2016 - Ceramics for Energy

The development of the world population, which is supposed to reach 9 billion by 2050, as well as the expected increase of the world energy consumption and demand represent serious challenges to be addressed in the near future. Within this context, materials science plays a crucial role in achieving advances in the safe, reliable and efficient use of energy and sustainable natural resources. Thus, materials synthesis and design receive increasing importance and attention in advanced technologies related to energy conversion and storage, such as batteries and capacitors, solar and fuel cells, superconductors, hydrogen technology, thermoelectrics etc.

The present symposium strives to highlight the role of ceramic materials in developing cutting-edge technologies for energy conversion, storage and savings.

Date: April 29, 2016

Venue: Technische Universität Darmstadt, Faculty of Architecture, Building L3/01, Hall 93, El-Lissitzky-Strasse 1, D-64287 Darmstadt

Occasion of the 60th Birthday of Prof. Riedel

The workshop will be held on the occasion of the 60th Birthday of Prof. Ralf Riedel (TU Darmstadt). Prof. Riedel received his PhD in Inorganic Chemistry in 1986 at the University of Stuttgart and spent 6 years as Post Doc at the Max-Planck-Institute for Metals Research in Stuttgart. Since 1993 he has been Professor at the Darmstadt University of Technology, Institute for Materials Science.

Prof. Riedel is a Fellow of the American Ceramic Society and of the European Ceramic Society as well as a member of the World Academy of Ceramics.

In 2006 he received a honorary doctorate from the Slovak Academy of Sciences in Bratislava. In 2009 he was awarded with a honorary professorship at the Tianjin University in China.

Occasion of the 60th Birthday of Prof. Riedel

Prof. Riedel has made significant contributions within the field of ceramics, especially related to materials synthesis aspects. Notably, he was one of the key players in the early 90ies of the last century pushing the field of polymer-derived ceramics forward. Moreover, he is well known in the ceramic and solid-state chemistry communities for his contribution related to the synthesis of novel materials and crystalline phases in high-pressure/high-temperature conditions. His work and publications in the field of nitrides and related materials (e.g., spinel-type silicon nitride, thorium-phosphide type zirconium and hafnium nitrides, spinel-type gallium oxynitride, etc.) are well known and highly cited.