

# Rhine Ceramic Chapter Germany

think global - act local

The **International Rhine Round Table** was established in 2017 as a platform to connect researchers from industry and academia, who are active in the field of ceramics and glass technology. Besides facilitating scientific discussions among world-class experts on the emerging trends in science and technology of ceramics materials and glass, this forum offers a common space to discuss shared interests among different professional societies in Germany, Europe and other regions worldwide to promote collaboration in research and training. Renowned international experts will participate this year to showcase their recent developments in fundamental and applied R&D, and to discuss new models for improving the engagement of young scientists in professional activities and societies.

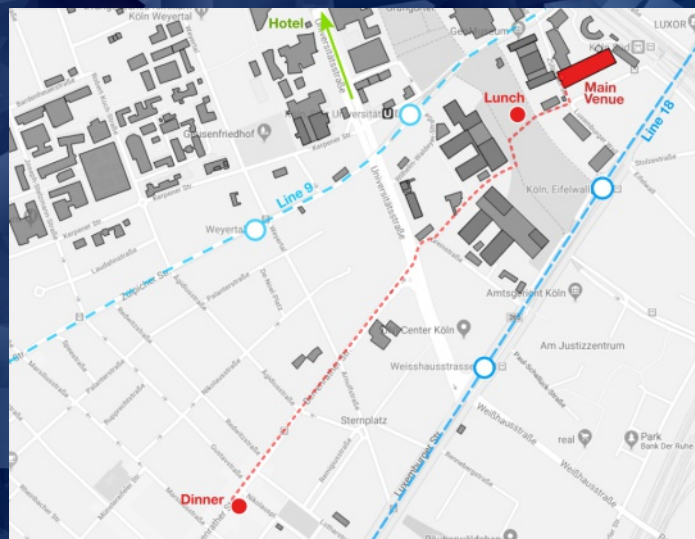
The **Rhine Ceramic Chapter Germany** will be organizing regular events, workshops and lectures to promote and connect ceramic and glass science, technology as well as application across academia, industry and interested public. Further information and updates are available at the chapter website [ceramics.uni-koeln.de](http://ceramics.uni-koeln.de)

## Chapter Officers

**President** Sanjay Mathur, University of Cologne  
**Vice-President** Yakup Gönüllü, Schott AG  
**Secretary** Emanuel Ionescu, TU Darmstadt  
**Treasurer** Thomas Fischer, University of Cologne

## Main Contact

**Prof. Dr. Dr. (h.c.) Sanjay Mathur**  
Chair, Inorganic and Materials Chemistry  
University of Cologne, Germany  
[ceramics-chapter@uni-koeln.de](mailto:ceramics-chapter@uni-koeln.de)  
[ceramics@uni-koeln.de](mailto:ceramics@uni-koeln.de)



### Main Venue

Building 304: Biozentrum Köln  
Zülpicher Straße 47b, 50674 Cologne

### Lunch Venue

Park between main venue and physics building

### Dinner Venue

Angelo D'Oro  
Berrenrather Str. 197, 50937 Cologne



INAM

The  
American  
Ceramic  
Society



MRS

€ MRS

# 2<sup>nd</sup> International Rhine Round Table Emerging Frontiers in Ceramic Materials and Glass

## Inaugural Symposium of the Rhine Ceramic Chapter Germany

**24. September 2018**  
Biocenter, University of Cologne



[ceramics.uni-koeln.de](http://ceramics.uni-koeln.de)

# Program

**08:30 Registration**

## **Chapter Inauguration and Society Spotlight (Chair: Sanjay Mathur)**

**09:00** Introductory Remarks, Sanjay Mathur, Chair, Inorganic and Materials Chemistry, University of Cologne (Germany)

Chapter Inauguration (Mike Alexander, Günter Schwarz, Sanjay Mathur)

Welcome Address, Günter Schwarz, Dean, Faculty of Mathematics and Natural Sciences, University of Cologne (Germany)

**09:15** Round Table Discussion, Moderation: Jennifer Leduc, Isabel Gessner

**10:00 Coffee Break & Group Photo**

## **Society Spotlights (Chair: Thomas Fischer)**

**10:30** Society Spotlight: ACerS, Mike Alexander, President ACerS, Allied Mineral Products, USA

**10:40** Materials Research Society: Reflections and Directions, Todd Osman, Executive Director, Material research Society (MRS), USA

**10:50** Society Spotlight: DKG, Ingolf Voigt, Deputy Institute Director, Fraunhofer-Institut für Keramische Technologien und Systeme (IKTS), Germany

**11:00** Society Spotlight: DGM, Dietmar Koch, Institute of Structures and Design, German Aerospace Center (DLR), Germany

**11:10** ECerS's mission, activities and future perspectives, Csaba Balaczi, Centre for Energy Research, Hungarian Academy of Science, Hungary

**11:20** Chapter Spotlight: ACerS Italy Chapter, Monica Ferraris, Politecnico di Torino, Italy

**11:30** Diamond: Best friend of Power Devices and Quantum Technology, Ken Haenen, Hasselt University, Belgium

**11:40** Innovation, a national and European challenge, Julián Martínez, University of Seville, Spain

**11:50** Discussion, Moderation: Thomas Fischer

**12:00 Lunch Break**

## **Keynote Highlights (Chair: Daniel Stadler)**

**13:30** Bridging the innovation chasm "Research to industry", Suprakas Ray, Council for Scientific and Industrial Research (CSIR), South Africa

**13:45** Engineering Resilience - A refractories Perspective, Dana Goski, Allied Mineral Products, USA

**14:00** Innovation and Challenges for surface modifications in the glass industry, Eveline Rudigier-Voigt, Schott AG, Germany

**14:15** Smart Business Strategy in response to the 4th Industrial Revolution in Materials Industry, Taejin Hwang, Korea Institute of Industrial Technology, KITECH, Korea

**14:30** Correlative microscopy - the beginning of the 'food chain' in materials and bio-medical research and a data treasury to exploit, Silke Christinsen, Helmholtz Center Berlin (HZB), Germany

**14:45** Silicon Nitride Ceramics - Progress and Challenge, Tatsuki Ohji, National Institute of Advanced Industrial Science and Technology (AIST), Japan

**15:00** Single walled carbon nanotube thin films for novel 3D electronics applications, Esko Kauppinen, Aalto University, Finland

**15:15** Nano and fine particles behavior control for ceramic materials processing, Hidehiro Kamiya, Tokyo University of Agriculture and Technology, Japan

**15:30 Coffee Break**

## **Invited Highlights (Chair: Jennifer Leduc)**

**16:00** Ceramics for Energy @ DKG, Olivier Guillon, Director, Institute for Energy- and Climate Research (IEK-1), Research Center Jülich, Germany

**16:10** Inorganic complex materials through solution chemistry; from precursors to products, Gunnar Westin, Department of Chemistry - Ångström Laboratory, Uppsala University, Sweden

**16:20** Multi-Materials Additive Manufacturing, Hans-Jürgen Richter, Additive Manufacturing, Fraunhofer-Institut für Keramische Technologien und Systeme (IKTS), Germany

**16:30** 3D Powder Printing in Space, Matthias Sperl, Institute of Materials Physics in Space, German Aerospace Center (DLR), Germany

**16:40** Cellular Ceramics: key materials for various fields of application, Tobias Fey, Institute of Glass and Ceramics, Department of Materials Science and Engineering, Friedrich-Alexander Universität Erlangen-Nürnberg, Germany

**16:50** Novel Nanostructured Luminescent Materials for Bio-Imaging, Claudia Wickleder, Inorganic Chemistry, University of Siegen, Germany

**17:00** Bioactive silicon oxycarbide glasses with highly connected networks, Emanuel Ionescu, Institute for Materials Science, TU Darmstadt, Germany

**17:10** Ceramics for energy, environment and security in the Laboratory for High Performance Ceramics at IIT Madras, Ravi Kumar, Laboratory for High Performance Ceramics, IIT Madras, India

**17:20** Phosphate based all solid state Li-ion battery, Roland Schierholz, Fundamental Electrochemistry (IEK-9), Research Center Jülich, Germany

**17:30** Ceramic materials and technologies for the development of solid-state batteries, Dina Fattakhova-Rohlfing, Institute for Energy- and Climate Research (IEK-1), Research Center Jülich, Germany

**17:40** Perovskite solar cell efficiency and stability, Trilok Singh, School of Energy Science and Engineering, Indian Institute of Technology Kharagpur, India

**17:50** Concluding Remarks, Mrityunjay (Jay) Singh, Former President, ACerS, Ohio Aerospace Institute, USA

**18:30 Networking Dinner**

Further information and updates are available at

**[ceramics.uni-koeln.de](http://ceramics.uni-koeln.de)**