

## Working Group Reinforcement of Ceramic Materials



Date: 3<sup>rd</sup> of March 2023  
Address: Schunk Kohlenstofftechnik GmbH, Rodheimer Str. 59, 35452 Heu-  
chelheim, GER  
Moderation: Prof. Dr. Dietmar Koch

At this working group meeting, the HOMAS consortia will present the results from the completed collaborative research projects.

### Program

**09:00 Welcome, coffee and snacks**

**09:15 Welcome and introduction**  
Prof. Dr. Dietmar Koch, Universität Augsburg  
Denny Schüppel, Ceramic Composites

**09:30 doMiGat – Presentation of the results of the joint research project**  
Dense oxide ceramic CMC components for micro gas turbine applications

**Coating of O-CMC parts with complex shape**  
G. Barroso, R. Wagner, M. Müller, all Rauschert | A. Rüdinger, Fraunhofer ISC-HTL

**Machining of O-CMC parts for micro gas turbines**  
T. Neuwald, Fraunhofer IPK | J. Mundstock, Euro K | R. Wagner, G. Barroso, Rauschert | M. Bohlender, Gustav Gerster

**Developments for high density O-CMC**  
A. Rüdinger, Fraunhofer ISC-HTL | J. Mundstock, Euro K | M. Müller, Rauschert | M. Bohlender, Gustav Gerster

**11:00 Coffee Brake**

**11:15 CMC TraTurb – Presentation of the results of the joint research project**  
CMC support structures in the hot gas section of gas turbines

**A continuum damage model for CMC materials**  
Claudio Findeisen, Jörg Hohe, Fraunhofer IWM

**SiC/SiC materials for turbine application (prepreg route)**  
Johanna Schmidt, Schunk

**Increasing the SiC matrix content of melt-infiltrated SiC/SiC CMCs & Design of attachment concepts for SiC/SiC turbine components**  
Fabia Süß, Sandrine Hönig, Martin Frieß, Linda Klopsch, all DLR-BT

**12:45 Lunch Brake**

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13:30 **CMC TurbAn – Presentation of the results of the joint research project**

CMC optimization for turbine applications

**Development of a turbine grade SiC/SiC CMC with CVI-PIP combi-process**

Kay Jäger, BJS Ceramics

**Development of oxidic CMC materials and feature patterns based on pressing technique and low cost fabrics**

Arne Rüdinger, Liviu Toma, Peter Vierhaus, Sabine Olbrich, all Fraunhofer ISC-HTL

**SiC/SiC materials for turbine application (preform route)**

Johanna Schmidt, Schunk

**Development of OFC material suitable for application in turbine engines**

Lukas Zulauf, Schunk

**Optimisation of CVI fibre coating thickness in melt infiltrated SiC/SiC CMCs & Development of environmental barrier coatings (EBC) for turbine applications**

Fabia Süß, Linda Klopsch, all DLR-BT | Ronja Anton, Vito Leisner, Uwe Schulz, all DLR-WF

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15:00 **Diskussion**

15:30 **End of the AK**

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## Overall Program

### Wednesday, 1<sup>st</sup> of March 2023

13:00 –  
16:00 **PhD working group**

19:00 –  
open end **Dinner / City Center**

### Thursday, 2<sup>nd</sup> of March 2023

08:30 –  
10:00 **General Meeting CU West**

10:30 –  
18:15 **Innovation Day: CMC + CFRP in the energy conversion & storage**

18:15 –  
20:00 **Dinner / Schunk**

20:30 –  
open end **Get together / City Center**

### Friday, 3<sup>rd</sup> of March 2023

09:00 –  
15:00 **Working Group CMC**

15:30 **End of the March Meetings @ Schunk**