

# 講演会の御案内

## 第285回応用セラミックス研究所講演会

- 日時：平成27年5月11日(月)13:30～14:30
- 場所：R3棟1階 応セラ研会議室
- 講師：Dr. Guo-Jun Zhang  
(Professor, Shanghai Institute of Ceramics, Chinese Academy of Sciences, China)
- 演題：“ZrB<sub>2</sub>-SiC ultra-high temperature ceramics  
— from microstructure tailoring to property improvements —”

Ultra-high temperature ceramics (UHTCs) are a family of carbides, borides, and nitrides of transition metals (mainly Zr, Hf, Ta), which have typical melting temperatures above 3000° C. These materials are generally considered to be good candidates for the leading edges of hypersonic vehicles and engine parts of scramjets. ZrB<sub>2</sub>-SiC ceramics are the baseline materials of UHTCs. The criteria of selecting materials for the above applications include good strength at room and service temperatures, thermal conductivity, thermal shock resistance, oxidation and ablation resistances, and emissivity. In this talk, the main results we have achieved very recently on the microstructure tailoring and mechanical property improvements in ZrB<sub>2</sub>-SiC system will be presented and discussed.

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