Poster 4. Microstructure and mechanical properties of ZrB2-Nb composites

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ZrB$_2$-Nb (ZN) composites were prepared by hot-pressing at 1800 °C for 60min. The effects of Nb content on densification, microstructure and mechanical properties of ZN composites were investigated.
Results and discussion

Ultra-High Temperature Ceramics: Materials for Extreme Environment Applications II
Ductile Nb deformation absorbs and dissipates a part of energy of crack initiation and propagation, leads to the improvement of fracture toughness.