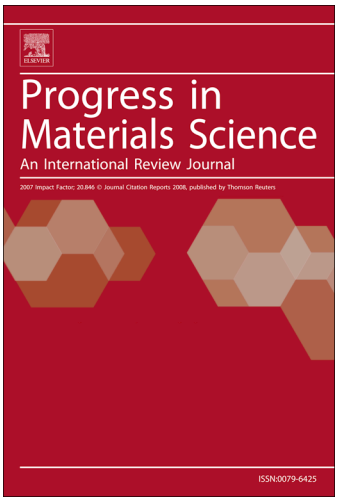

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Metastable Si-B-C-N Ceramics and Their Matrix Composites Developed by Inorganic Route Based on Mechanical Alloying: Fabrication, Microstructures, Properties and Their Relevant Basic Scientific Issues

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Abstract

The development of novel high-temperature structural and multifunctional thermal protection materials for harsh environment applications, such as high-temperature oxidation, severe thermal shock, ablation by combustion gas flow etc., is one of the urgent needs of the modern aerospace industry. Ceramic matrix composites such as C_f/(C, SiC, Si_3N_4), SiC_f/ZrB_2, SiC_p/(Si_3N_4, HfB_2) have received much attention in

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