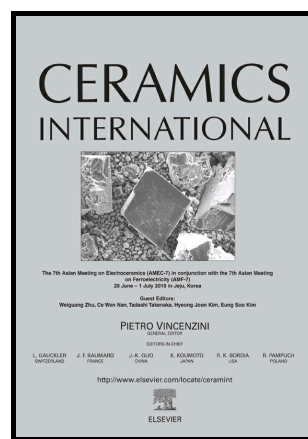


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**Synthesis of Fine Dispersed Titanium Diboride from Nanofibrous Carbon**

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**Abstract**

This paper presents the experimental data on the synthesis of titanium diboride (TiB<sub>2</sub>) fine dispersed powder carried out in laboratory scale. TiB<sub>2</sub> powder was prepared by the reduction of titanium dioxide with boron carbide and nanofibrous carbon in an argon atmosphere. The powders of TiB<sub>2</sub> were characterized by X-ray diffraction (XRD), elemental analyses, scanning electron microscopy (SEM), energy-dispersive X-ray spectroscopy (EDX), low-temperature nitrogen adsorption, particle size analysis, simultaneous thermogravimetry and differential scanning calorimetry (TG-DSC). The resulting material contains a single phase – titanium diboride. The particles of the powder were predominantly aggregated. The average size of the particles and the

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