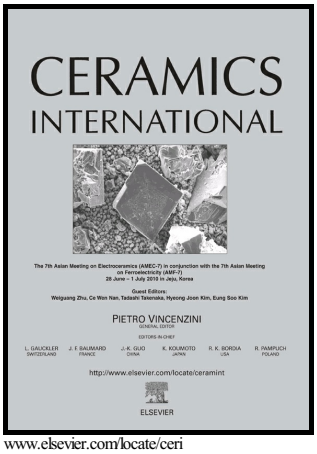

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Preparation, mechanical properties and cyclic oxidation behavior of the Nanostructured NiCrCoAlY-TiB_2 coating

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Abstract

TiB_2-Metal composite coatings with excellent oxidation resistance become ideal candidates using at high temperature ranging from 600 to 1000 ^oC. In order to maintain both the superior mechanical properties and oxidation resistance in severe working conditions, the nanostructured NiCrCoAlY-TiB_2 coating was fabricated by the activated combustion high velocity air-fuel spraying (AC-HVAF) with the composite powders prepared by ball milling and plasma spheroidization. *X*-ray diffraction (XRD), scanning