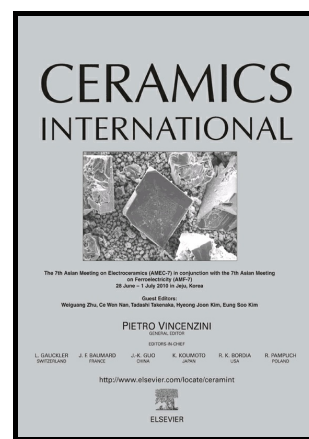


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Black Plasma-Sprayed Ta₂O₅ Coatings with Photothermal Effect for Bone**Tumor Therapy**

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Abstract

In this work, a black vacuum-plasma-sprayed Ta₂O₅ coating (VTO) was fabricated using white Ta₂O₅ powder as a raw material. Interestingly, a gray Ta₂O₅ coating was obtained by heat treatment of VCO coating (HVTO). The morphology, phase composition, photothermal conversion and cancer therapy effect *in vitro* of VTO and HVTO were comprehensively evaluated. Experimental results showed that VTO exhibited higher photothermal conversion effect and had an efficiency of 30.8% with

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