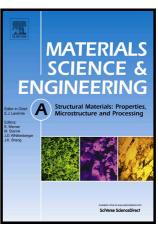
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ACCEPTED MANUSCRIPT

Spark plasma sintering a commercial powder: TiAl densification and creep analysis.

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Keywords: Spark sintering, Intermetallic plasma TiAl, Creep parameters, Titanium carbide, Duplex and Lamellar microstructures

Abstract

Commercial 48-2-2 TiAl powder was densified by spark plasma sintering. Fully dense materials with duplex and lamellar microstructures were obtained. An original protocol was developed to avoid carbide formation due to reactions between TiAl and graphite molds. TiAl materials with lamellar microstructures and high creep behavior were produced.

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