

Title (en)
METAL MATRIX COMPOSITES, AND METHODS FOR MAKING THE SAME

Title (de)
METALLMATRIX-VERBUNDWERKSTOFFE UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
COMPOSITES A MATRICE METALLIQUE, ET PROCEDE DE PRODUCTION CORRESPONDANT

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Abstract (en)
[origin: WO2004018726A1] A metal matrix composite article comprising a first metal and an insert reinforcing the first metal, wherein the first metal selected from the group consisting of aluminium, alloys thereof, and combinations thereof, wherein the insert comprises substantially continuous ceramic oxide fibers and a second metal selected from the group consisting of aluminium, alloys thereof, and combinations thereof, wherein the second metal secures the substantially continuous ceramic oxide fibers in place, wherein the second metal extends along at least a portion of the length of the substantially continuous ceramic oxide fibers, wherein there is an interface layer between the first metal and the insert, and wherein there is an interface layer peak bond strength value between the first metal and the insert of at least 100 MPa. Metal comprising inserts for reinforcing a metal matrix composite article and methods of making the same. In another aspect, the present invention provides metal matrix composite articles reinforced with an insert(s) and methods of making the same. Useful metal matrix composite articles include structural components for aerospace applications.

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