

Title (en)
METAL MATRIX COMPOSITES

Publication
EP 0227352 A3 19890308 (EN)

Application
EP 86309433 A 19861203

Priority
GB 8531070 A 19851217

Abstract (en)
[origin: EP0227352A2] A composite material comprising a refractory, inorganic filler material (e.g. SiC or Al₂O₃) in a matrix of aluminium or an aluminium-containing alloy is made by incorporating the filler material into the aluminium or aluminium-containing alloy at a temperature above its liquidus, e.g. by vacuum stirring, followed by cooling to solidify the composite. In order to improve the wettability of the filler by the molten metal, the filler has a bismuth additive, for example in the form of a bismuth compound such as bismuth oxide, dispersed therein. This may be done by intimately mixing elemental bismuth with particulate filler followed by oxidation of the bismuth to bismuth oxide. e.g. by heating in air.

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C22C 1/10

IPC 8 full level
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CPC (source: EP)
C22C 1/1036 (2013.01); **C22C 32/0036** (2013.01); **C22C 32/0047** (2013.01); **C22C 32/0089** (2013.01)

Citation (search report)
• [Y] GB 959442 A 19640603 - DU PONT
• [A] US 4189522 A 19800219 - MORI SANAE [JP]
• [A] FR 1276929 A 19611124 - BENDIX CORP
• [A] DE 1111836 B 19610727 - GEN ELECTRIC CO LTD
• [X] PATENT ABSTRACTS OF JAPAN, vol. 10, no. 123 (C-344)[2180], 8th May 1986; & JP-A-60 251 150 (OKUNO SEIYAKU KOGYO K.K.) 11-12-1985

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