

Title (en)

Fine grained metal composition.

Title (de)

Feinkörnige Metallzusammensetzungen.

Title (fr)

Composition métallique à grains fins.

Publication

EP 0139168 A1 19850502 (EN)

Application

EP 84110109 A 19840824

Priority

US 53399783 A 19830920

Abstract (en)

A metal alloy composition having a uniform, fine grained microstructure comprising uniform discrete spheroidal particles contained within a lower melting matrix, said alloy being a magnesium, ferrous or copper alloy. The composition is prepared by producing a solid metal alloy composition having an essentially directional grain structure and heating the directional grain composition to a temperature above the solidus and below the liquidus to produce a partially solid, partially liquid mixture containing at least 0.05 volume fraction liquid. The composition, prior to heating, has a strain level introduced such that upon heating, the mixture comprises uniform discrete spheroidal particles contained within a lower melting matrix. The heated alloy is then solidified, the solidified composition having a uniform, fine grained microstructure.

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C22C 1/00

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [Y] FR 2266749 A1 19751031 - PECHINEY ALUMINIUM [FR]
- [Y] FR 2266748 A1 19751031 - PECHINEY ALUMINIUM [FR]
- [XP] EP 0090253 A2 19831005 - ITT IND GMBH DEUTSCHE [DE], et al

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