

Title (en)

METAL ALLOY COMPOSITIONS AND PROCESS

Title (de)

METALL-LEGIERUNGSZUSAMMENSETZUNGEN UND HERSTELLUNGSVERFAHREN

Title (fr)

COMPOSITIONS D'ALLIAGE METALLIQUE ET PROCEDE D'OBTENTION

Publication

**EP 1322439 B1 20050706 (EN)**

Application

**EP 01975249 A 20010917**

Priority

- US 0129223 W 20010917
- US 66670000 A 20000921

Abstract (en)

[origin: WO0224381A1] A skinless metal alloy composition free of entrapped gas and comprising primary solid discrete degenerate dendrites homogenously dispersed within a secondary phase is formed by process wherein the metal alloy is heated in a vessel to render it a liquid (10). The liquid is then rapidly cooled while vigorously agitating it (12) under conditions to avoid entrapment of gas while forming solid nuclei (14) homogenously distributed in the liquid. Agitation then is ceased when the liquid contains a small fraction solid or the liquid-solid alloy is removed from the source of agitation (12) while cooling is continued to form the primary solid discrete degenerate dendrites in liquid secondary phase. The solid-liquid mixture then can be formed such as by casting.

IPC 1-7

**B22D 27/08**; **C22C 1/02**; **C22C 1/00**

IPC 8 full level

**B22D 11/00** (2006.01); **B22D 1/00** (2006.01); **B22D 11/22** (2006.01); **B22D 27/04** (2006.01); **B22D 27/20** (2006.01); **C22C 1/00** (2006.01)

CPC (source: EP)

**C22C 1/12** (2023.01)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

**WO 0224381 A1 20020328**; AT E299059 T1 20050715; AU 9458901 A 20020402; CA 2422696 A1 20020328; CA 2422696 C 20090317; DE 60111856 D1 20050811; DE 60111856 T2 20060511; EP 1322439 A1 20030702; EP 1322439 A4 20040915; EP 1322439 B1 20050706; ES 2245703 T3 20060116; JP 2004508939 A 20040325; JP 4667711 B2 20110413

DOCDB simple family (application)

**US 0129223 W 20010917**; AT 01975249 T 20010917; AU 9458901 A 20010917; CA 2422696 A 20010917; DE 60111856 T 20010917; EP 01975249 A 20010917; ES 01975249 T 20010917; JP 2002528437 A 20010917