

Title (en)  
LIGHT METAL ALLOY SINTERING METHOD

Title (de)  
VERFAHREN ZUM LEICHTMETALL-LEGIERUNGS-SINTERN

Title (fr)  
PROCEDE DE FRITTAGE D'UN ALLIAGE LEGER

Publication  
**EP 1709209 A2 20061011 (DE)**

Application  
**EP 04802845 A 20041126**

Priority  
• DE 2004002636 W 20041126  
• DE 102004002714 A 20040119

Abstract (en)  
[origin: DE102004002714B3] To sinter a light metal alloy, the alloy powder is pressed into a green compact at 90% of its theoretical density. The green compact is sintered at a temperature of 80-95% of the limiting crystallization temperature of the light metal alloy, as the press is removed. The pre-sintered material is given a two-dimensional cold pressing by 10% of its height with a longitudinal distortion of the granules. The material is sintered again at a higher temperature of 90-99% of the limiting crystallizing temperature, with a final calibration and further compression by 1-2% of its height. The metallurgical powder can also incorporate hard materials e.g. SiC, boron carbide, boron nitride, tungsten carbide, and the like.

IPC 8 full level  
**C22C 1/04** (2006.01); **B22F 3/16** (2006.01)

CPC (source: EP)  
**B22F 3/16** (2013.01); **C22C 1/0416** (2013.01); **C22C 21/02** (2013.01); **C22C 21/12** (2013.01); **B22F 2003/248** (2013.01); **B22F 2998/00** (2013.01)

Citation (search report)  
See references of WO 2005068112A2

Cited by  
CN102699327A; CN108277369A; CN103506624A; DE102017123738A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**DE 102004002714 B3 20050519**; AT E398190 T1 20080715; DE 502004007370 D1 20080724; EP 1709209 A2 20061011; EP 1709209 B1 20080611; ES 2272202 T1 20070501; ES 2272202 T3 20081201; PL 1709209 T3 20081128; WO 2005068112 A2 20050728; WO 2005068112 A3 20060119

DOCDB simple family (application)  
**DE 102004002714 A 20040119**; AT 04802845 T 20041126; DE 2004002636 W 20041126; DE 502004007370 T 20041126; EP 04802845 A 20041126; ES 04802845 T 20041126; PL 04802845 T 20041126