

Title (en)
Process of production of high-density semi-finished or finished product

Title (de)
Verfahren zur Herstellung eines hochdichten Halbzeugs oder Bauteils

Title (fr)
Procédé de production des produits finis ou semi-finis à haute densité

Publication
EP 1801247 A1 20070627 (DE)

Application
EP 06026181 A 20061218

Priority
AT 8882005 U 20051223

Abstract (en)
Process for preparation of a powder metallurgy component or semi-finished component from a material comprising Mo, Mo alloy, W, W alloy and having a mean relative density greater than 98.5.% and a relative grain density greater than 98.3% by the steps: preparation of a powder of Fisher particle size of 0.05-10 micron, compacting of the powder at a pressure of 100-500 Mpa, sintering at 0.55-0.02xsolidus temperature and relative density D, where 90% less than D 90.0 less than 5% less than 98.5%, hot isostatic pressing without use of a pot (sic) at 0.40-0.65xsolidus temperature at a pressure of 50-300 Mpa, and forming at a degree of deformation Q, where 15% less than Q less than 90%.

IPC 8 full level
C22C 1/04 (2006.01); **H01J 9/02** (2006.01)

CPC (source: EP US)
B22F 3/15 (2013.01 - EP US); **B22F 5/00** (2013.01 - EP US); **C22C 1/045** (2013.01 - EP US); **H01J 9/02** (2013.01 - EP US);
H01J 9/04 (2013.01 - EP US); **B22F 2003/248** (2013.01 - EP US); **B22F 2998/10** (2013.01 - EP US); **H01J 61/0735** (2013.01 - EP US)

C-Set (source: EP US)
1. **B22F 2998/10 + B22F 3/04 + B22F 3/1007 + B22F 3/15 + B22F 3/18 + B22F 3/24**
2. **B22F 2998/10 + B22F 3/04 + B22F 3/1007 + B22F 3/15 + B22F 3/17 + B22F 3/24**

Citation (search report)
• [A] AT 6240 U1 20030625 - PLANSEE AG [AT]
• [A] EP 1435398 A1 20040707 - TOSHIBA KK [JP]
• [A] US 6582535 B1 20030624 - SUZUKI SATORU [JP], et al

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US7973476B2; WO2009109566A1; US8120256B2; WO2009039880A1; WO2008077832A1

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

Designated extension state (EPC)
AL BA HR MK YU

DOCDB simple family (publication)
EP 1801247 A1 20070627; EP 1801247 B1 20080312; AT 9340 U1 20070815; AT E389040 T1 20080315; CN 101007350 A 20070801;
CN 101007350 B 20120704; DE 502006000455 D1 20080424; JP 2007169789 A 20070705; JP 5265867 B2 20130814;
US 2007148031 A1 20070628

DOCDB simple family (application)
EP 06026181 A 20061218; AT 06026181 T 20061218; AT 8882005 U 20051223; CN 200610167574 A 20061222; DE 502006000455 T 20061218;
JP 2006344389 A 20061221; US 64583606 A 20061226