

Title (en)  
CREEP-RESISTANT ALLOY OF REFRACTORY METALS AND ITS PRODUCTION PROCESS

Publication  
**EP 0299027 B1 19911002 (DE)**

Application  
**EP 88901002 A 19880126**

Priority  
AT 15887 A 19870128

Abstract (en)  
[origin: WO8805830A1] A creep-resistant sintered alloy having a tiered structural arrangement of one or several refractory metals Mo, W, Nb, Ta, V, Cr containing certain doping agents, as well as a process for producing the same. The special doping agents are compounds and/or mixed phases of these compounds selected from the group of oxides, nitrides, carbides, borides, silicates or aluminates having a melting point higher than 1500 DEG C. The size of their grains is  $\leq 1.5 \mu m$ , their proportion in the alloy is comprised between 0.005 and 10 weight %. Unlike in the known state of the art, the use of potassium as doping agent is avoided in this alloy. A good reproducible consolidation and in particular high densities during sintering can thus be obtained. Furthermore, this alloy has better ambient temperature, heat and creep resistance properties than known alloys of refractory metals with a tiered structural arrangement.

IPC 1-7  
**B22F 3/24**; **C22C 32/00**; **C22F 1/18**

IPC 8 full level  
**B22F 3/24** (2006.01); **C22C 1/05** (2006.01); **C22C 29/16** (2006.01); **C22C 32/00** (2006.01); **C22F 1/18** (2006.01)

CPC (source: EP US)  
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Citation (examination)  
Auszug eines auf dem 8 Plansee seminar, Reutte 1974, gehaltenen Vortrages von R. Eck, "Das Sintern von K-Si-dotiertem Mo und Eigenschaften des Fertigproduktes"

Cited by  
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