

Title (en)
METHOD OF PRODUCING SINTERABLE TITANIUM BASE ALLOY POWDER

Publication
EP 0039791 B1 19830504 (DE)

Application
EP 81102790 A 19810411

Priority
DE 3017782 A 19800509

Abstract (en)
[origin: US4373947A] A process is disclosed for the preparation of alloy powders, which can be sintered and which are based on titanium, by the calciothermal reduction of the oxides of the metals forming the alloys in the presence of neutral additives. This can be accomplished by mixing TiO₂ with oxides of the other components of the alloy, admixing an alkaline earth oxide or carbonate with the metal oxides, calcining the mixture. After cooling, the mixture is crushed and calcium is added. Thereafter, green compacts are formed which are heated and leached to remove the calcium oxide. The powder obtained is of uniform structure composition, is free of segregations of oxides nitrides carbides and/or hydrides and has high bulk and tap densities and can be molded by isostatic hot molding.

IPC 1-7
C22B 34/12; **B22F 9/20**

IPC 8 full level
B22F 9/18 (2006.01); **B22F 9/20** (2006.01); **C22B 34/12** (2006.01); **C22C 1/00** (2006.01); **C22C 1/04** (2006.01); **C22C 14/00** (2006.01)

CPC (source: EP US)
B22F 9/20 (2013.01 - EP US); **C22B 34/1268** (2013.01 - EP US)

Cited by
CN106282661A; EP0144868A3; EP0540898A3; US5354354A

Designated contracting state (EPC)
AT BE CH DE FR GB LI NL SE

DOCDB simple family (publication)
EP 0039791 A1 19811118; **EP 0039791 B1 19830504**; AT E3214 T1 19830515; CA 1174083 A 19840911; CS 342581 A2 19911015; DD 158799 A5 19830202; DE 3017782 A1 19811119; DE 3017782 C2 19820930; DE 3160220 D1 19830609; JP S572806 A 19820108; JP S5925003 B2 19840613; SU 1243612 A3 19860707; US 4373947 A 19830215

DOCDB simple family (application)
EP 81102790 A 19810411; AT 81102790 T 19810411; CA 377215 A 19810508; CS 342581 A 19810508; DD 22981481 A 19810507; DE 3017782 A 19800509; DE 3160220 T 19810411; JP 6838081 A 19810508; SU 3279157 A 19810507; US 26017881 A 19810504