

Title (en)
PROCESS FOR DECREASING THE RANGE OF VALUES OF THE MECHANICAL CHARACTERISTICS OF TUNGSTEN-NICKEL-IRON ALLOYS

Publication
EP 0297001 B1 19911023 (FR)

Application
EP 88420211 A 19880621

Priority
FR 8709169 A 19870623

Abstract (en)
[origin: US4931252A] A process for reducing disparities of mechanical properties in tungsten-nickel-iron alloys containing in % by weight 85 to 99% of tungsten, 1 to 10% of iron, the alloys being obtained from tungsten, nickel and iron powders which have the same or different grain diameter, shape and size distribution, which entails simultaneously adding an effective amount of each of cobalt and manganese powders to tungsten powder or to a mixture of tungsten, nickel and iron powders.

IPC 1-7
C22C 1/04; **C22C 27/04**

IPC 8 full level
B22F 1/00 (2006.01); **B22F 3/12** (2006.01); **C22C 1/04** (2006.01); **C22C 27/04** (2006.01)

CPC (source: EP KR US)
B22F 1/00 (2013.01 - KR); **C22C 1/04** (2013.01 - KR); **C22C 1/045** (2013.01 - EP US)

Designated contracting state (EPC)
AT BE CH DE ES GB GR IT LI LU NL SE

DOCDB simple family (publication)
EP 0297001 A1 19881228; **EP 0297001 B1 19911023**; AT E68834 T1 19911115; AU 1825288 A 19890105; AU 603229 B2 19901108; BR 8803055 A 19890110; CA 1340873 C 20000111; CN 1013042 B 19910703; CN 1031257 A 19890222; DE 3865753 D1 19911128; ES 2025320 B3 19920316; FR 2617192 A1 19881230; FR 2617192 B1 19891020; GR 3002979 T3 19930125; IL 86816 A0 19881130; IL 86816 A 19920621; IN 169594 B 19911116; JP H01195247 A 19890807; JP H08939 B2 19960110; KR 890000193 A 19890313; KR 920004706 B1 19920613; RU 1797627 C 19930223; SG 12993 G 19930521; TR 23644 A 19900528; UA 13386 A 19970228; US 4931252 A 19900605; YU 120188 A 19900831; YU 46262 B 19930528; ZA 884454 B 19890329

DOCDB simple family (application)
EP 88420211 A 19880621; AT 88420211 T 19880621; AU 1825288 A 19880622; BR 8803055 A 19880622; CA 570132 A 19880622; CN 88103710 A 19880621; DE 3865753 T 19880621; ES 88420211 T 19880621; FR 8709169 A 19870623; GR 910400633 T 19911024; IL 8681688 A 19880621; IN 412CA1988 A 19880524; JP 15336088 A 19880621; KR 880007535 A 19880622; SG 12993 A 19930206; SU 4356071 A 19880622; TR 43788 A 19880621; UA 4356071 A 19880622; US 19991388 A 19880527; YU 120188 A 19880622; ZA 884454 A 19880622