Title (en)

MOLYBDENUM- BASED ALLOY MATERIAL EXHIBITING HIGH STRENGTH AND HIGH CRYSTALLIZATION TEMPERATURE AND METHOD FOR PRODUCTION THEREOF

Title (de)

AUF MOLYBDÄN BASIERENDES LEGIERUNGSMATERIAL MIT HOHER FESTIGKEIT UND HOHER REKRISTALLISATIONSTEMPERATUR UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

MATÉRIAU ALLIÉ À BASE DE MOLYBDÈNE ET PRÉSENTANT UNE EXCELLENTE RÉSISTANCE ET UNE TEMPÉRATURE ÉLEVÉE DE RECRISTALLISATION ET PROCÉDÉ DE FABRICATION DE CELUI-CI

Publication

EP 1752551 A1 20070214 (EN)

Application

EP 05737380 A 20050427

Priority

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- JP 2004135752 A 20040430

Abstract (en)

A refractory metal-based alloy material exhibiting high strength and high recrystallization temperature includes a worked material obtained by carburizing, while using a carbon source and coexisted oxygen, a material containing nitride particles of a solute metal dispersed and precipitated in a matrix by multi-step nitriding of a worked alloy material containing one metal selected from Mo, W, and Cr as a matrix and at least one element selected from Ti, Zr, Hf, V, Nb, and Ta as the solute metal, wherein the worked material contains carbon segregated at grain boundaries as a result of the carburizing and oxide particles converted from the nitride particles.

IPC 8 full level

C22C 1/10 (2006.01); **C22F 1/18** (2006.01); **C22C 27/00** (2006.01); **C22C 27/04** (2006.01); **C22C 32/00** (2006.01); **C22F 1/00** (2006.01); **C23C 8/34** (2006.01)

CPC (source: EP KR US)

C22C 1/10 (2013.01 - KR); **C22C 1/1078** (2013.01 - EP US); **C22C 32/0005** (2013.01 - EP US); **C22C 37/04** (2013.01 - KR); **C23C 8/34** (2013.01 - EP KR US); B22F 2999/00 (2013.01 - EP US)

C-Set (source: EP US)

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