

Title (en)
COPPER-NIOBIUM ALLOY AND METHOD FOR THE PRODUCTION THEREOF

Title (de)
KUPFER-NIOB-LEGIERUNG UND VERFAHREN ZU IHRER HERSTELLUNG

Title (fr)
ALLIAGE CUIVRE-NIOBIUM ET PROCEDE DE PRODUCTION DUDIT ALLIAGE

Publication
EP 1483420 B1 20070808 (DE)

Application
EP 03724828 A 20030303

Priority
• DE 0300764 W 20030303
• DE 10210423 A 20020304

Abstract (en)
[origin: DE10210423C1] Copper-niobium alloy has niobium deposits having a particle diameter of 5-100 nm in a copper matrix as well as copper-niobium mixed crystals. An Independent claim is also included for a process for producing the copper-niobium alloy comprising grinding copper powder as the matrix material with 0.1-50 at.% niobium powder, mechanically alloying and heat treating. Preferred Features: The niobium is partially dissolved in a copper lattice. The niobium deposits are in the form of fine particles or fibers. The fibers have an aspect ratio of more than 4: 1, preferably more than 10: 1. The alloy has a strength of 1200-2000 MPa.

IPC 8 full level
C22C 1/04 (2006.01); **B22F 1/00** (2006.01); **B22F 9/04** (2006.01); **C22C 9/00** (2006.01); **C22C 27/02** (2006.01); **C22C 30/02** (2006.01); **H01H 1/025** (2006.01)

CPC (source: EP KR US)
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C-Set (source: EP KR US)
EP
1. **B22F 2998/10 + B22F 3/14 + B22F 3/24 + B22F 3/16**
2. **B22F 2999/00 + B22F 9/04 + B22F 2202/03**
3. **B22F 2998/10 + B22F 1/09 + B22F 9/04 + B22F 1/142**
KR US
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