Title (en)

COPPER-ALLOY WIRE ROD AND MANUFACTURING METHOD THEREFOR

Title (de)

KUPFERLEGIERUNGSWALZDRAHT UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

FIL EN ALLIAGE DE CUIVRE, ET PROCÉDÉ DE FABRICATION DE CELUI-CI

Publication

EP 2868758 B1 20180418 (EN)

Application

EP 13813342 A 20130702

Priority

- JP 2012148920 A 20120702
- JP 2013068160 W 20130702

Abstract (en)

[origin: EP2868758A1] {Problem to solve} To provide, at low cost, a copper alloy wire that is excellent in elongation, and resistance to bending fatigue, and that can be suitable for the use in, for example, magnet wires. {Means to solve} A copper alloy wire, having an alloy composition containing 0.5 to 4 mass% of Ag, and at least one selected from the group consisting of Sn, Mg, Zn, In, Ni, Co, Zr, and Cr each at a content of 0.05 to 0.3 mass%, with the balance being Cu and unavoidable impurities, wherein the copper alloy wire has a wire diameter or a wire thickness of 0.1 mm or less, and wherein the nanoindentation hardness in a depth region extending from the outermost surface of the wire toward at least 5% inner side in the wire diameter or the wire thickness is 1.45 GPa or more, the nanoindentation hardness at the center of the wire is less than 1.45 GPa, the tensile strength of the wire is 350 MPa or more, and the elongation of the wire is 7% or more; and a method of producing the copper alloy wire.

IPC 8 full level

C22C 9/00 (2006.01); **C22F 1/08** (2006.01); **H01B 1/02** (2006.01); **H01B 5/02** (2006.01); **H01B 13/00** (2006.01)

CPC (source: EP KR)

B22D 21/00 (2013.01 - KR); **C22C 9/00** (2013.01 - EP KR); **C22F 1/08** (2013.01 - EP KR); **H01B 1/026** (2013.01 - EP KR)

Cited by

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DOCDB simple family (publication)

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