

Title (en)

Method of manufacturing wires of Cu-Ag alloys

Title (de)

Verfahren zur Herstellung von Drähten aus Cu-Ag-Legierungen

Title (fr)

Procédé de fabrication de fils d'alliages Cu-Ag

Publication

**EP 2873475 A1 20150520 (EN)**

Application

**EP 14461523 A 20140404**

Priority

PL 40344313 A 20130405

Abstract (en)

A method of manufacturing wires, including microwires, of Cu-Ag alloys, in particular of alloys of Cu-(3÷7.9)% Ag by weight, consisting in that the materials in the form of high chemical purity copper and silver are melted at a temperature of 1083÷1300 C in a graphite crucible placed in a furnace, and subsequently continuously cast at a temperature of 1083÷1300 C, in an inert gas atmosphere, using a graphite mould, at primary cooling conditions (mould cooling) and secondary cooling conditions (the solidified alloy after leaving the mould). Thus obtained casting is subjected to the thermo-mechanical treatment.

IPC 8 full level

**B22D 11/00** (2006.01); **B22D 11/04** (2006.01); **B22D 11/041** (2006.01)

CPC (source: EP)

**B22D 1/002** (2013.01); **B22D 11/004** (2013.01); **B22D 11/005** (2013.01); **B22D 11/04** (2013.01); **B22D 11/059** (2013.01); **B22D 11/1245** (2013.01); **C22F 1/08** (2013.01)

Citation (applicant)

- JP 2000199042 A 20000718 - SHOWA ELECTRIC WIRE & CABLE CO
- WO 2007046378 A1 20070426 - NAT INST FOR MATERIALS SCIENCE [JP], et al
- US 2008202648 A1 20080828 - AOYAGI TAIKAN [JP], et al

Citation (search report)

- [XD] JP 2000199042 A 20000718 - SHOWA ELECTRIC WIRE & CABLE CO
- [XD] US 2008202648 A1 20080828 - AOYAGI TAIKAN [JP], et al
- [X] JP 2000239766 A 20000905 - SUMITOMO ELECTRIC INDUSTRIES, et al
- [ID] WO 2007046378 A1 20070426 - NAT INST FOR MATERIALS SCIENCE [JP], et al
- [I] US 7544886 B2 20090609 - DETIAN HUANG [JP], et al
- [I] US 5077005 A 19911231 - KATO MASANORI [JP]
- [X] A KAWECKI ET AL: "Fabrication, Properties and Microstructures of High Strength and High Conductivity Copper-Silver Wires / Otrzymywanie Oraz Własności i Mikrostruktura Wysokowytrzymałych i Wysoko Przewodzących Drutów Ze Stopów Cu-Ag", ARCHIVES OF METALLURGY AND MATERIALS, 1 December 2012 (2012-12-01), Warsaw, pages 1261, XP055182007, Retrieved from the Internet <URL:http://search.proquest.com/docview/1328783897> [retrieved on 20150410], DOI: 10.2478/v10172-012-0141-1
- [I] SAKAI ET AL: "Ultra-high strength, high conductivity Cu-Ag alloy wires", ACTA MATERIALIA, ELSEVIER, OXFORD, GB, vol. 45, no. 3, 1 March 1997 (1997-03-01), pages 1017 - 1023, XP005009839, ISSN: 1359-6454

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CN115141946A; CN113736970A; CN108368565A; EP3460080A4; CN114645153A; US10626483B2

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2873475 A1 20150520; EP 2873475 B1 20181017**; ES 2706474 T3 20190329; HU E041639 T2 20190528; LT 2873475 T 20190325; PL 221274 B1 20160331; PL 2873475 T3 20190430; PL 403443 A1 20141013; SI 2873475 T1 20190531

DOCDB simple family (application)

**EP 14461523 A 20140404**; ES 14461523 T 20140404; HU E14461523 A 20140404; LT 14461523 T 20140404; PL 14461523 T 20140404; PL 40344313 A 20130405; SI 201431053 T 20140404