

Title (en)  
COPPER ALLOY MATERIAL

Title (de)  
KUPFERLEGIERUNGSMATERIAL

Title (fr)  
MATÉRIAUX D'ALLIAGE DE CUIVRE

Publication  
**EP 3375897 A4 20190403 (EN)**

Application  
**EP 16863933 A 20161011**

Priority  
• JP 2015219851 A 20151109  
• JP 2016080082 W 20161011

Abstract (en)  
[origin: EP3375897A1] A copper alloy material has a composition including: 0.1 mass% or more and 1.5 mass% or less of Cr; 0.05 mass% or more and 0.25 mass% or less of Zr; 0.005 mass% or more and 0.10 mass% or less of P; and a Cu balance including inevitable impurities. The copper alloy material includes a Cr-Zr-P compound containing Cr, Zr and P and an area ratio of the Cr-Zr-P compound is in a range of 0.5 % or more and 5.0 % or less in a structure observation, and the Cr-Zr-P compound is in a form of a needle shape or a granular shape and a length a longest side of the needle shape or the granular shape is 100μm or less.

IPC 8 full level  
**C22C 9/00** (2006.01); **C22F 1/08** (2006.01)

CPC (source: EP KR US)  
**B22C 9/061** (2013.01 - US); **C22C 9/00** (2013.01 - EP KR US); **C22F 1/08** (2013.01 - EP KR US); **C22F 1/00** (2013.01 - EP US)

Citation (search report)  
• [YA] JP H05339688 A 19931221 - FURUKAWA ELECTRIC CO LTD  
• [XA] JP H01309935 A 19891214 - KOBE STEEL LTD  
• [YA] US 2006088437 A1 20060427 - NIPPERT RUSSELL [US], et al  
• [A] EP 2610359 A1 20130703 - FURUKAWA ELECTRIC CO LTD [JP]  
• See references of WO 2017081969A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 3375897 A1 20180919; EP 3375897 A4 20190403; EP 3375897 B1 20210901;** CN 108291275 A 20180717; CN 108291275 B 20200313;  
JP 2017088948 A 20170525; JP 6736869 B2 20200805; KR 102493118 B1 20230127; KR 20180078244 A 20180709;  
US 2018291490 A1 20181011; WO 2017081969 A1 20170518

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KR 20187012110 A 20161011; US 201615769024 A 20161011