

Title (en)
METHOD FOR MANUFACTURING A GOLD ALLOY WIRE

Title (de)
HERSTELLUNGSVERFAHREN EINES DRAHTS AUS GOLDLEGIERUNG

Title (fr)
PROCÉDÉ DE FABRICATION D'UN FIL EN ALLIAGE D'OR

Publication
EP 3165621 A1 20170510 (FR)

Application
EP 15193182 A 20151105

Priority
EP 15193182 A 20151105

Abstract (en)
[origin: CN106676368A] A method for manufacturing a gold alloy wire is provided. The method includes preparing an alloy comprising 33.33-45.83% of Au, 3.64-12.44% of Zn, 18.46-45.02% of Cu, 9.88-33.78% of Ni, and 0.0-5.0% of an element selected from Ir, In, Ti, Si, Ga and Re; manufacturing a continuous casting rod the diameter of which is 8.0-20.0 mm; subjecting the rod to wire rod rolling by limiting the deformation of the section to less than 20% per pass, preferably 13%; measuring the cumulative deformation with respect to the initial section; stopping the wire rod rolling when the cumulative deformation reaches 60% to 75%; annealing; performing wire rod rolling again and repeating wire rod rolling, measurement and annealing until the cross section reaches a required cross section; and drawing an intermediate product to obtain a fracture-surface wire having a round cross section.

Abstract (fr)
Procédé de fabrication d'un fil en alliage d'or: - on compose un alliage comportant de 33,33% à 45,83% d'Au, de 3,64% à 12,44% de Zn, de 18,46% à 45,02% de Cu, de 9,88% et 33,78 % de Ni, et de 0,0 à 5,0% d'éléments parmi Ir, In, Ti, Si, Ga, Re, - on coule en continu une barre, de diamètre de 8,0 à 20,0 mm, - on lamine ladite barre en limitant la déformation de la section à moins de 20% par passe, préférentiellement 13%, - on mesure la déformation cumulée par rapport à la section initiale, - on cesse le laminage quand la déformation cumulée atteint 60% à 75%, on effectue un recuit, - on reprend le laminage et on réitère le processus de laminage, de mesure, et de recuit jusqu'à l'atteinte de la section souhaitée, - on étire le laminé pour obtenir un fil profilé de section circulaire.

IPC 8 full level
C22C 30/02 (2006.01); **C22C 5/02** (2006.01); **C22C 9/00** (2006.01); **C22F 1/14** (2006.01)

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Citation (applicant)
"A facile chemical screening method for the détection of stress corrosion cracking in 9 carat gold alloys", GOLD BULLETIN, vol. 42, no. 3, 2009

Citation (search report)
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• [A] EP 2045343 A1 20090408 - LEGOR GROUP S R L [IT]
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• [A] GREG NORMANDEAU ET AL: "White golds: A question of compromises", GOLD BULLETIN, vol. 27, no. 3, 1 September 1994 (1994-09-01), London, UK, pages 70 - 86, XP055270088, ISSN: 0017-1557, DOI: 10.1007/BF03214730
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DOCDB simple family (application)
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