

Title (en)

ZIRCONIUM ALLOYS WITH IMPROVED CORROSION/CREEP RESISTANCE DUE TO FINAL HEAT TREATMENTS

Title (de)

ZIRKONIUMLEGIERUNGEN MIT VERBESSERTER KORROSIONS-/KRIECHBESTÄNDIGKEIT AUFGRUND ABSCHLIESSENDER WÄRMEBEHANDLUNG

Title (fr)

ALLIAGES DE ZIRCONIUM PRÉSENTANT UNE MEILLEURE RÉSISTANCE À LA CORROSION/AU FLUAGE GRÂCE À DES TRAITEMENTS THERMIQUES FINAUX

Publication

EP 2721188 A1 20140423 (EN)

Application

EP 12800643 A 20120518

Priority

- US 201113161563 A 20110616
- US 2012038471 W 20120518

Abstract (en)

[origin: WO2012173738A1] Articles, such as tubing or strips, which have excellent corrosion resistance to water or steam at elevated temperatures, are produced from alloys having 0.2 to 1.5 weight percent niobium, 0.01 to 0.6 weight percent iron, and optionally additional alloy elements selected from the group consisting of tin, chromium, copper, vanadium, and nickel with the balance at least 97 weight percent zirconium, including impurities, where a necessary final heat treatment includes one of i) a SRA or PRXA (15-20% RXA) final heat treatment, or ii) a PRXA (80-95% RXA) or RXA final heat treatment.

IPC 8 full level

C22C 16/00 (2006.01); **C22F 1/18** (2006.01)

CPC (source: EP)

C22C 16/00 (2013.01); **C22F 1/18** (2013.01); **C22F 1/186** (2013.01); **G21C 3/07** (2013.01); **Y02E 30/30** (2013.01)

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)

WO 2012173738 A1 20121220; CN 103608475 A 20140226; CN 108950306 A 20181207; EP 2721188 A1 20140423; EP 2721188 A4 20150429; EP 3064605 A1 20160907; EP 3064605 B1 20210331; ES 2886336 T3 20211217; JP 2014518330 A 20140728; JP 5982474 B2 20160831; KR 101929608 B1 20181214; KR 20140058492 A 20140514; TW 201303034 A 20130116; TW I545201 B 20160811

DOCDB simple family (application)

US 2012038471 W 20120518; CN 201280029053 A 20120518; CN 201810867175 A 20120518; EP 12800643 A 20120518; EP 16000804 A 20120518; ES 16000804 T 20120518; JP 2014515830 A 20120518; KR 20147000611 A 20120518; TW 101121397 A 20120614