

Title (en)

REFRACTORY ELEMENT, ASSEMBLY AND TUNDISH FOR TRANSFERRING MOLTEN METAL

Title (de)

FEUERFESTES ELEMENT, ANORDNUNG UND ZWISCHENBEHÄLTER ZUM UMFÜLLEN EINES GESCHMOLZENEN METALLS

Title (fr)

ÉLÉMENT RÉFRACTAIRE, ASSEMBLAGE ET RÉPARTITEUR POUR TRANSFÉRER DU MÉTAL FONDU

Publication

**EP 2701868 A4 20150603 (EN)**

Application

**EP 12776441 A 20120228**

Priority

- US 201161481136 P 20110429
- US 2012026856 W 20120228

Abstract (en)

[origin: WO2012148560A1] A refractory element is configured to prevent or limit steel reoxidation in a steel casting process. The refractory element contains a base surrounded by a periphery in a specified geometrical arrangement. The refractory element is constituted of a base surrounded by a periphery in a specified geometrical arrangement.

IPC 8 full level

**B22D 41/58** (2006.01); **B22D 41/50** (2006.01)

CPC (source: EP KR US)

**B22D 41/00** (2013.01 - KR); **B22D 41/02** (2013.01 - KR); **B22D 41/50** (2013.01 - EP KR US); **B22D 41/502** (2013.01 - EP US)

Citation (search report)

- [X] EP 1904251 B1 20091209 - VESUVIUS CRUCIBLE CO [US] & EP 2158989 A1 20100303 - VESUVIUS CRUCIBLE CO [US] & WO 2007009667 A2 20070125 - VESUVIUS CRUCIBLE CO [US], et al & US 2008210719 A1 20080904 - GUILLO PHILIPPE [FR], et al
- [I] JP 2003205360 A 20030722 - NIPPON STEEL CORP
- [I] US 3934755 A 19760127 - RHEINLANDER PAUL, et al
- See references of WO 2012148560A1

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 2012148560 A1 20121101**; AR 086101 A1 20131120; AU 2012250255 A1 20130926; BR 112013025791 A2 20170808; CA 2829302 A1 20121101; CL 2013003112 A1 20140822; CN 103582535 A 20140212; EP 2701868 A1 20140305; EP 2701868 A4 20150603; JP 2014512277 A 20140522; KR 20140022418 A 20140224; MX 2013012585 A 20131206; RU 2014110706 A 20150927; TW 201242689 A 20121101; US 2014061257 A1 20140306; ZA 201306980 B 20141126

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**US 2012026856 W 20120228**; AR P120101315 A 20120417; AU 2012250255 A 20120228; BR 112013025791 A 20120228; CA 2829302 A 20120228; CL 2013003112 A 20131028; CN 201280020864 A 20120228; EP 12776441 A 20120228; JP 2014508346 A 20120228; KR 20137030321 A 20120228; MX 2013012585 A 20120228; RU 2014110706 A 20120228; TW 101109777 A 20120322; US 201214009545 A 20120228; ZA 201306980 A 20130917