

Title (en)  
METHOD AND APPARATUS FOR RECOVERING PGM AND FERRO-CHROME FROM PGM BEARING CHROMITE ORE

Title (de)  
VERFAHREN UND VORRICHTUNG ZUR RÜCKGEWINNUNG VON PGM UND FERROCHROM AUS PGM-LAGER-CHROMITERZ

Title (fr)  
PROCÉDÉ ET APPAREIL POUR LA RÉCUPÉRATION DE PGM ET FERROCHROME À PARTIR DE MINÉRAIS DE CHROMITE PORTEURS DE PGM

Publication  
**EP 2978866 A1 20160203 (EN)**

Application  
**EP 14720990 A 20140325**

Priority  
• FI 20135284 A 20130325  
• FI 2014050214 W 20140325

Abstract (en)  
[origin: WO2014154945A1] In a method for recovering PGMs and ferrochrome from platinum group metals bearing chromite ore, a concentrate is prepared that contains most of PGMs and chromite of the ore and the concentrate is subjected to a heating step to dry and/or preheat the concentrate, after which the preheated concentrate is smelted under reducing conditions in a DC smelting furnace (14) to produce molten metal alloy containing the PGMs of the feed and molten slag containing the chromium of the feed. The molten slag is tapped from the smelting furnace (14) into an AC slag furnace (16), where iron and chromium are reduced to produce a ferrochrome alloy. PGMs are recovered from the metal alloy tapped from the smelting furnace (14) utilizing hydro-metallurgical processes.

IPC 8 full level  
**C22B 11/02** (2006.01); **C22B 34/32** (2006.01)

CPC (source: EP FI)  
**C22B 1/00** (2013.01 - FI); **C22B 5/02** (2013.01 - FI); **C22B 7/04** (2013.01 - FI); **C22B 9/00** (2013.01 - FI); **C22B 11/02** (2013.01 - EP FI); **C22B 34/32** (2013.01 - EP); **C22C 33/04** (2013.01 - EP); **C22C 38/18** (2013.01 - EP); **F27B 19/04** (2013.01 - EP); **B22F 9/082** (2013.01 - EP); **Y02P 10/20** (2015.11 - EP)

Citation (search report)  
See references of WO 2014154945A1

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

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**WO 2014154945 A1 20141002**; BR 112015024481 A2 20170718; CA 2907005 A1 20141002; CA 2907005 C 20170725; CN 105164285 A 20151216; EA 029428 B1 20180330; EA 201591659 A1 20160429; EP 2978866 A1 20160203; FI 125099 B 20150529; FI 20135284 A 20140926; ZA 201507020 B 20170125

DOCDB simple family (application)  
**FI 2014050214 W 20140325**; BR 112015024481 A 20140325; CA 2907005 A 20140325; CN 201480017592 A 20140325; EA 201591659 A 20140325; EP 14720990 A 20140325; FI 20135284 A 20130325; ZA 201507020 A 20150921