

Title (en)

METHOD FOR REMOVING IMPURITIES IN MOLTEN CAST IRON, AND CAST IRON RAW MATERIAL

Title (de)

VERFAHREN ZUR ENTFERNUNG VON UNREINHEITEN AUS GESCHMOLZENEM GUSSEISEN UND GUSSEISENROHMATERIAL

Title (fr)

PROCÉDÉ D'ÉLIMINATION D'IMPURETÉS DANS FONTE EN FUSION ET MATIÈRE PREMIÈRE DE FONTE

Publication

**EP 2530171 A4 20150715 (EN)**

Application

**EP 11736950 A 20110124**

Priority

- JP 2010016251 A 20100128
- JP 2011051195 W 20110124

Abstract (en)

[origin: EP2530171A1] There is provided a method for obtaining a pure melt in which the impurities Mn, Al, Ti, Pb, Zn, and B are removed from molten cast iron and depletion of useful C and Si is suppressed, the method wherein an excess oxygen flame having a theoretical combustion ratio of fuel and oxygen (amount of oxygen (volume) x 5/amount of fuel (volume)) of 1 to 1.5 is directly exposed to the surface of pre-melted molten cast iron, the temperature of the molten cast iron is held at 1250°C or more and less than 1500°C while the melt surface is superheated and an acidic slag is brought into contact with the melt, and an oxygen-containing gas is injected into the interior of the molten cast iron.

IPC 8 full level

**C21C 1/08** (2006.01); **C21C 1/04** (2006.01); **C22C 37/00** (2006.01); **C22C 37/10** (2006.01)

CPC (source: EP KR US)

**C21C 1/04** (2013.01 - EP KR US); **C21C 1/08** (2013.01 - EP KR US); **C22C 37/00** (2013.01 - KR); **C22C 37/10** (2013.01 - EP US)

Citation (search report)

- [XA] JP H10330816 A 19981215 - NIPPON OXYGEN CO LTD
- [A] US 4130419 A 19781219 - HUMMER ROLAND, et al
- [A] US 3653877 A 19720404 - ENYA RYOSUKE
- [A] DE 2727093 A1 19790104 - LINDE AG
- See references of WO 2011093237A1

Cited by

RU2508417C1

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

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