

Title (en)
METHOD FOR PRODUCING STAINLESS STEEL USING DIRECT REDUCTION FURNACES FOR FERROCHROME AND FERRONICKEL ON THE PRIMARY SIDE OF A CONVERTER

Title (de)
VERFAHREN ZUR ROSTFREISTÄHLERZEUGUNG MIT DIREKTREDUKTIONSOEFEN FÜR FERROCHROM UND FERRONICKEL AUF DER PRIMÄRSEITE EINES KONVERTERS

Title (fr)
PROCÉDÉ DE PRODUCTION D'ACIER INOXYDABLE AVEC DES FOURS DE RÉDUCTION DIRECTE DE FERROCHROME ET DE FERRONICKEL SUR LE CÔTÉ PRIMAIRE D'UN CONVERTISSEUR

Publication
EP 2207905 A1 20100721 (DE)

Application
EP 08842218 A 20081022

Priority
• EP 2008008928 W 20081022
• DE 102007050478 A 20071023

Abstract (en)
[origin: WO2009053044A1] In order to allow a substantial reduction in steel production costs in the production of stainless steel using the alloy elements chromium and nickel, the invention proposes that the required intermediate production of ferrochrome and ferronickel be conducted in two separate direct reduction processes based on low-cost chromium ore and nickel ore in two parallel SAFs (3, 4) disposed on the primary side of a converter (6) that performs the subsequent processing.

IPC 8 full level
C21C 5/00 (2006.01); **C22C 33/00** (2006.01)

CPC (source: EP US)
C21B 13/006 (2013.01 - EP US); **C21B 13/12** (2013.01 - EP US); **C21B 13/143** (2013.01 - EP US); **C21C 5/005** (2013.01 - EP US); **C22B 23/021** (2013.01 - EP US); **C22C 33/04** (2013.01 - EP US); **C22C 37/08** (2013.01 - EP US)

Citation (search report)
See references of WO 2009053044A1

Cited by
EP4056720A1; EP4056721A1; DE102021214218A1; DE102021214220A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
DE 102007050478 A1 20090430; AU 2008315932 A1 20090430; AU 2008315932 B2 20110414; BR PI0818714 A2 20150825; BR PI0818714 A8 20160503; BR PI0818714 B1 20170328; CN 101835911 A 20100915; EP 2207905 A1 20100721; EP 2207905 B1 20130814; ES 2426455 T3 20131023; JP 2011500965 A 20110106; JP 5583585 B2 20140903; KR 101174705 B1 20120816; KR 20100056570 A 20100527; TW 200920852 A 20090516; TW I392742 B 20130411; US 2010288078 A1 20101118; US 8133296 B2 20120313; WO 2009053044 A1 20090430; ZA 201002190 B 20101124

DOCDB simple family (application)
DE 102007050478 A 20071023; AU 2008315932 A 20081022; BR PI0818714 A 20081022; CN 200880112850 A 20081022; EP 08842218 A 20081022; EP 2008008928 W 20081022; ES 08842218 T 20081022; JP 2010530334 A 20081022; KR 20107008801 A 20081022; TW 97140411 A 20081022; US 73434108 A 20081022; ZA 201002190 A 20100326