

Title (en)
METHOD FOR OPERATING BLAST FURNACE

Title (de)
VERFAHREN ZUM BETRIEB EINES HOCHOFENS

Title (fr)
PROCÉDÉ DE FONCTIONNEMENT D'UN HAUT-FOURNEAU

Publication
EP 3517632 A4 20191106 (EN)

Application
EP 17879791 A 20171212

Priority
• JP 2016243989 A 20161216
• JP 2017044474 W 20171212

Abstract (en)
[origin: EP3517632A1] Provided is a blast furnace operation method that makes it possible to control the component concentrations of a blast furnace feed material to target component concentrations even if there is a change in the component concentrations of a sintering raw material. A blast furnace operation method includes charging blast furnace feed materials into a blast furnace, the blast furnace feed materials including product sintered ore, lump iron ore, and an auxiliary material. The blast furnace operation method includes: a sintering step for sintering a sintering raw material to form a sintered cake; a crushing step for crushing the sintered cake to form sintered ore; a cooling step for cooling the sintered ore; a sieving step for sieving the cooled sintered ore to separate into product sintered ore and return ore; a measuring step for measuring a component concentration of at least one of the cooled sintered ore, the product sintered ore, and the return ore; and an adjusting step for adjusting consumptions of the product sintered ore, the lump iron ore, and the auxiliary material, which are to be included in the blast furnace feed materials, wherein, in the adjusting step, the consumptions of the blast furnace feed materials are adjusted by using the component concentration measured in the measuring step.

IPC 8 full level
C21B 5/00 (2006.01); **C21B 5/04** (2006.01); **C22B 1/16** (2006.01)

CPC (source: EP KR)
C21B 5/006 (2013.01 - EP KR); **C21B 5/008** (2013.01 - EP KR); **C22B 1/16** (2013.01 - EP); **C22B 1/20** (2013.01 - EP); **C21B 2100/80** (2017.04 - EP)

Citation (search report)
• [I] JP S5751206 A 19820326 - SUMITOMO METAL IND
• [I] RU 2240351 C2 20041120
• [A] JP S60262926 A 19851226 - KAWASAKI STEEL CO
• [A] JP 2016130341 A 20160721 - KOBE STEEL LTD
• [A] JP S5651507 A 19810509 - SUMITOMO METAL IND
• [A] JP 2011038735 A 20110224 - JFE STEEL CORP
• See references of WO 2018110521A1

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)
EP 3517632 A1 20190731; EP 3517632 A4 20191106; EP 3517632 B1 20211124; CN 110073006 A 20190730; JP 6519036 B2 20190529; JP WO2018110521 A1 20190328; KR 102303009 B1 20210915; KR 20190085970 A 20190719; PH 12019501367 A1 20200224; TW 201829792 A 20180816; TW I658147 B 20190501; WO 2018110521 A1 20180621

DOCDB simple family (application)
EP 17879791 A 20171212; CN 201780077773 A 20171212; JP 2017044474 W 20171212; JP 2018556672 A 20171212; KR 20197017127 A 20171212; PH 12019501367 A 20190614; TW 106143969 A 20171214