Title (en)

METHOD FOR CHARGING RAW MATERIAL INTO BELL-LESS BLAST FURNACE

Title (de)

VERFAHREN ZUM LADEN VON ROHMATERIAL IN EINEN GLOCKENLOSEN HOCHOFEN

Title (fr)

PROCÉDÉ DE CHARGEMENT DE MATIÈRE PREMIÈRE DANS UN HAUT-FOURNEAU SANS ENTONNOIR DE COULÉE

Publication

EP 2857529 A4 20160224 (EN)

Application

EP 13797875 A 20130319

Priority

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- JP 2013001857 W 20130319

Abstract (en)

[origin: EP2857529A1] With respect to raw material charging from a furnace intermediate portion to a furnace wall, a coke batch (first charging batch 5a) is piled up such that a coke surface has a piled-up peak in a range of dimensionless furnace-opening radius of 0.6 to 0.8, and forms a raw material piled-up slope which is inclined toward a furnace center and toward the furnace wall; a mixture batch of ore and coke (third charging batch 5c) is charged such that its fall point of charging is on the furnace wall side from the piled-up peak of coke; and an ore batch (fourth charging batch 5d) is charged such that its fall point of charging is in a range of dimensionless furnace-opening radius of 0.5 to 0.9. This makes it possible to independently control and decrease O/C in the vicinity of the furnace wall without requiring a new ancillary facility, and to prevent formation of furnace wall deposits without significantly increasing reducing material ratio of the blast furnace. It is desirable that the charging amount of the mixture batch of ore and coke is less than that of the ore batch.

IPC 8 full level

C21B 5/00 (2006.01); **C21B 7/20** (2006.01)

CPC (source: EP KR)

C21B 5/00 (2013.01 - KR); **C21B 5/008** (2013.01 - EP KR); **C21B 7/20** (2013.01 - EP KR)

Citation (search report)

- [A] JP S6447803 A 19890222 - NIPPON STEEL CORP
- [A] JP S60258402 A 19851220 - SUMITOMO METAL IND
- [A] JP S62290809 A 19871217 - KOBE STEEL LTD
- See references of WO 2013179541A1

Designated contracting state (EPC)

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DOCDB simple family (application)

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