

Title (en)

METHOD FOR DETECTING AIR FLOW DISTRIBUTION IN BLAST FURNACE

Title (de)

VERFAHREN ZUR ERKENNUNG DER VERTEILUNG EINES LUFTSTROMS IN EINEM HOCHOFEN

Title (fr)

PROCÉDÉ DE DÉTECTION DE LA DISTRIBUTION DE FLUX D'AIR DANS UN HAUT-FOURNEAU

Publication

EP 3190194 A4 20180321 (EN)

Application

EP 14901343 A 20140919

Priority

- CN 201410446536 A 20140903
- CN 2014086931 W 20140919

Abstract (en)

[origin: EP3190194A1] A method for detecting an air flow distribution in a blast furnace, taking into account a heat exchange between an air flow and a solid material bed and the effect of a distribution of a material layer structure in a radial direction of a blast furnace on the radial air permeability of blast furnace, which affects a mode of air flow distribution, wherein the distribution of the air flow and the radial material layer structure of the blast furnace can be calculated by combining a cross-shaped temperature-measuring gun and other main blast furnace operating parameters. According to the detection method, a blast furnace operator can timely and accurately infer, from a change in a current radial air flow temperature distribution, the direction of change of the distribution of the air flow and the radial material layer structure at a furnace throat portion, thus providing a direction for the adjustment of a material distribution system, ensuring the blast furnace to run stably and smoothly, extending a service life and reducing a fuel ratio without other expensive detecting instruments.

IPC 8 full level

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CPC (source: EP KR US)

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Citation (search report)

- [XA] JP S5993809 A 19840530 - SUMITOMO METAL IND
- [X] JP S52117821 A 19771003 - SUMITOMO METAL IND
- See references of WO 2016033843A1

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