Title (en)

METHOD AND PROBE FOR DETERMINING THE MATERIAL DISTRIBUTION IN A BLAST FURNACE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR BESTIMMUNG DER VERTEILUNG VON MATERIAL IN EINEM HOCHOFEN

Title (fr)

PROCÉDÉ ET SONDE POUR DÉTERMINER LA DISTRIBUTION DE MATIÈRE DANS UN HAUT-FOURNEAU

Publication

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Application

EP 15700646 A 20150108

Priority

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Abstract (en)

[origin: WO2015104306A1] The present invention proposes a measuring probe for a measurement of the material distribution inside the burden of a blast furnace. The measuring probe comprises a sensor with a transmitter coil and a receiver coil, which are protected by a protective shell against heat and abrasion. An alternating current is applied to the transmitter coil that emits a primary alternating magnetic field, which induces eddy currents in any electrically conductive material of the burden within the primary alternating magnetic field. The eddy currents generate a secondary alternating magnetic field and a receiver coil measures an electrical current, which is generated by the primary alternating magnetic field and the secondary alternating magnetic field. The measured electrical current is evaluated by a control and evaluation unit. The electrical current is indicative of the material distribution inside the burden of a blast furnace.

IPC 8 full level

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