

Title (en)

BLAST CONTROL DEVICE FOR BLAST FURNACE AND METHOD THEREFOR

Title (de)

VORRICHTUNG ZUR GEBLÄSESTEUERUNG FÜR HOCHÖFEN UND VERFAHREN DAFÜR

Title (fr)

DISPOSITIF DE RÉGULATION DU DÉBIT DE VENT POUR HAUT FOURNEAU ET PROCÉDÉ S'Y RAPPORTANT

Publication

EP 3712281 A4 20200923 (EN)

Application

EP 18879916 A 20180704

Priority

- KR 20170151770 A 20171114
- KR 2018007588 W 20180704

Abstract (en)

[origin: EP3712281A1] A device for controlling a blast in a blast furnace includes: an imaging device for capturing an image of a charging material charged into the blast furnace; at least one sensor for measuring a condition of the blast furnace; a data collector for obtaining particle size data of the charging material from the image; a blast volume predictor for obtaining a blast volume predictive value of the blast furnace from the particle size data; and a blast volume controller for controlling a hot-blast volume supplied into the blast furnace according to the blast volume predictive value.

IPC 8 full level

C21B 5/00 (2006.01); **C21B 7/16** (2006.01); **C21B 7/24** (2006.01); **F27B 1/26** (2006.01); **F27B 1/28** (2006.01); **F27D 21/00** (2006.01); **F27D 19/00** (2006.01)

CPC (source: EP KR)

C21B 5/006 (2013.01 - EP); **C21B 7/16** (2013.01 - EP KR); **C21B 7/24** (2013.01 - EP KR); **F27B 1/26** (2013.01 - EP); **F27B 1/28** (2013.01 - EP); **F27D 21/0014** (2013.01 - EP); **C21B 2300/04** (2013.01 - EP KR); **F27D 2019/0003** (2013.01 - EP); **F27D 2019/0043** (2013.01 - EP); **F27D 2021/0007** (2013.01 - EP)

Citation (search report)

- [X] JP H01205008 A 19890817 - NIPPON KOKAN KK
- [X] JP S5466304 A 19790528 - NIPPON KOKAN KK
- [X] JP S5855512 A 19830401 - KAWASAKI STEEL CO
- See references of WO 2019098484A1

Cited by

CN113793308A

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 3712281 A1 20200923; **EP 3712281 A4 20200923**; **EP 3712281 B1 20230215**; CN 111344420 A 20200626; JP 2021503042 A 20210204; JP 7012159 B2 20220127; KR 102002428 B1 20190722; KR 20190054794 A 20190522; WO 2019098484 A1 20190523

DOCDB simple family (application)

EP 18879916 A 20180704; CN 201880073801 A 20180704; JP 2020526586 A 20180704; KR 20170151770 A 20171114; KR 2018007588 W 20180704