

Title (en)
STATE ESTIMATION METHOD FOR SINTERING PROCESS, OPERATION GUIDANCE METHOD, METHOD FOR PRODUCING SINTERED ORE, STATE ESTIMATION DEVICE FOR SINTERING PROCESS, OPERATION GUIDANCE DEVICE, SINTERING OPERATION GUIDANCE SYSTEM, SINTERING OPERATION GUIDANCE SERVER, AND TERMINAL DEVICE

Title (de)
ZUSTANDSSCHÄTZVERFAHREN FÜR SINTERPROZESS, BETRIEBSFÜHRUNGSVERFAHREN, SINTERERZHERSTELLUNGSVERFAHREN, BETRIEBSFÜHRUNGSSYSTEM

Title (fr)
PROCÉDÉ D'ESTIMATION D'ÉTAT POUR UN PROCESSUS DE FRITTAGE, PROCÉDÉ DE GUIDAGE D'OPÉRATION, PROCÉDÉ DE PRODUCTION D'UN MINÉRAI FRITTÉ, DISPOSITIF D'ESTIMATION D'ÉTAT POUR UN PROCESSUS DE FRITTAGE, DISPOSITIF DE GUIDAGE D'OPÉRATION, SYSTÈME DE GUIDAGE D'OPÉRATION DE FRITTAGE, SERVEUR DE GUIDAGE D'OPÉRATION DE FRITTAGE ET ÉQUIPEMENT TERMINAL

Publication
EP 4345178 A1 20240403 (EN)

Application
EP 22841997 A 20220704

Priority
• JP 2021115109 A 20210712
• JP 2022026636 W 20220704

Abstract (en)
A sintering process state estimation method includes a process variable calculation step (S1) of calculating an observable process variable using a physical model that takes into account chemical reactions and heat transfer phenomena in a sintering process, a deviation calculation step (S2) of calculating a deviation between an estimated value and an actual value of the calculated process variable, a model parameter adjustment step (S3) of modifying an unknown parameter of the physical model so that the calculated deviation is reduced, and a feature data calculation step (S4) of calculating feature data of the sintering process based on the modified physical model.

IPC 8 full level
C22B 1/20 (2006.01); **F27B 21/14** (2006.01)

CPC (source: EP KR)
C22B 1/20 (2013.01 - EP KR); **F27B 21/02** (2013.01 - KR); **F27D 3/00** (2013.01 - EP KR); **F27D 2003/0002** (2013.01 - KR); **F27D 2003/0004** (2013.01 - KR); **F27D 2003/0018** (2013.01 - KR)

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

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4345178 A1 20240403; CN 117460854 A 20240126; JP 2024050752 A 20240410; JP WO2023286653 A1 20230119; KR 20240013811 A 20240130; WO 2023286653 A1 20230119

DOCDB simple family (application)
EP 22841997 A 20220704; CN 202280040534 A 20220704; JP 2022026636 W 20220704; JP 2022560428 A 20220704; JP 2024014335 A 20240201; KR 20237045015 A 20220704