

Title (en)

OPERATING METHOD AND DEVICE FOR A SHAFT FURNACE

Title (de)

VERFAHREN UND VORRICHTUNG ZUM BETREIBEN EINES SCHACHTOFENS

Title (fr)

PROCEDE ET DISPOSITIF PERMETTANT DE FAIRE FONCTIONNER UN FOUR A CUVE

Publication

**EP 0946848 B1 20011219 (DE)**

Application

**EP 97948806 A 19971025**

Priority

- DE 19646802 A 19961113
- EP 9705906 W 19971025

Abstract (en)

[origin: US6187258B1] A method for operating a blast furnace includes feeding metallic charge materials, alloy elements and energy carriers in the upper part of the furnace shaft. An oxidizing agent is fed in the lower part of the shaft. Filler material, namely, alloy elements, metal chips, carbon, sands, dust are fed individually or in combination into the melting zone in at least one burst jet. Fuels may be introduced additionally into the first jet. The oxygen is fed at a high speed into the melting zone in at least one separate jet and the conditions of introducing the materials in the first jet and the oxygen in the second jet are controlled so that no flame can be formed.

IPC 1-7

**F27B 1/16**; **C21B 5/02**

IPC 8 full level

**C21B 5/02** (2006.01); **F27B 1/16** (2006.01); **F27B 1/20** (2006.01)

CPC (source: EP US)

**C21B 5/023** (2013.01 - EP US); **F27B 1/16** (2013.01 - EP US); **F27B 1/20** (2013.01 - EP US)

Cited by

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AT BE CH DE ES FI FR GB GR IT LI NL SE

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**US 6187258 B1 20010213**; AT E211250 T1 20020115; AU 7180698 A 19980603; DE 19646802 A1 19980514; DE 59705923 D1 20020131; EP 0946848 A2 19991006; EP 0946848 B1 20011219; ES 2170421 T3 20020801; TW 365644 B 19990801; WO 9821536 A2 19980522; WO 9821536 A3 19981029; ZA 979426 B 19980512

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