

Title (en)

METHOD FOR THE OPERATION OF A SHAFT FURNACE

Title (de)

VERFAHREN ZUM BETREIBEN EINES SCHACHTOFENS

Title (fr)

PROCEDE D'UTILISATION D'UN FOUR A CUVE

Publication

EP 1948833 A2 20080730 (DE)

Application

EP 06840931 A 20061109

Priority

- EP 2006010752 W 20061109
- DE 102005053505 A 20051109

Abstract (en)

[origin: WO2007054308A2] Disclosed is a method for operating a shaft furnace, in which a top zone of the shaft furnace is charged with raw materials which sinks inside the furnace under the effect of gravity. A portion of the raw materials is melted and/or reduced under the effect of the atmosphere prevailing within the shaft furnace while a processing gas that has at least some influence on the atmosphere prevailing in the shaft furnace is introduced into a bottom zone of the shaft furnace, the introduction of the processing gas being dynamically modulated regarding the pressure and/or the volumetric flow rate within a period of 40 s. Also disclosed is a shaft furnace that can be operated using such a method, resulting in improved fumigation of the shaft furnace.

IPC 8 full level

C21B 5/00 (2006.01); **C21B 11/02** (2006.01); **F27B 1/16** (2006.01)

CPC (source: EP KR US)

C21B 5/00 (2013.01 - KR); **C21B 5/001** (2013.01 - EP US); **C21B 11/02** (2013.01 - EP US); **F27B 1/16** (2013.01 - EP US);
F27B 1/26 (2013.01 - EP US); **F27D 19/00** (2013.01 - EP US)

Citation (search report)

See references of WO 2007054308A2

Cited by

DE102014102913A1; WO2015132159A1; RU2696987C1; US10386119B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

DE 102005053505 A1 20070510; AT E525486 T1 20111015; AU 2006311226 A1 20070518; AU 2006311226 B2 20100909;
BR PI0618470 A2 20110830; BR PI0618470 B1 20160705; CN 101305103 A 20081112; CN 101305103 B 20120704; EA 013386 B1 20100430;
EA 200801076 A1 20081030; EP 1948833 A2 20080730; EP 1948833 B1 20110921; ES 2373462 T3 20120203; JP 2009515049 A 20090409;
JP 5113071 B2 20130109; KR 20080067644 A 20080721; PL 1948833 T3 20120430; US 2008237944 A1 20081002;
US 2012217684 A1 20120830; US 8173064 B2 20120508; US 8444910 B2 20130521; WO 2007054308 A2 20070518;
WO 2007054308 A3 20070913

DOCDB simple family (application)

DE 102005053505 A 20051109; AT 06840931 T 20061109; AU 2006311226 A 20061109; BR PI0618470 A 20061109;
CN 200680041467 A 20061109; EA 200801076 A 20061109; EP 06840931 A 20061109; EP 2006010752 W 20061109;
ES 06840931 T 20061109; JP 2008539339 A 20061109; KR 20087011122 A 20080508; PL 06840931 T 20061109;
US 201213440128 A 20120405; US 9282206 A 20061109