

Title (en)

METHOD AND DEVICE FOR REDUCING THE OXYGEN CONTENT OF A COPPER MELT

Title (de)

VERFAHREN UND VORRICHTUNG ZUR VERMINDERUNG DES SAUERSTOFFGEHALTES EINER KUPFERSCHMELZE

Title (fr)

PROCEDE ET DISPOSITIF POUR REDUIRE LA TENEUR EN OXYGENE D'UN BAIN DE CUIVRE

Publication

EP 1301642 A1 20030416 (DE)

Application

EP 01956290 A 20010621

Priority

- DE 0102316 W 20010621
- DE 10035593 A 20000721

Abstract (en)

[origin: DE10035593A1] Reducing the oxygen content of a copper melt comprises melting the copper initially in a shaft furnace, and subsequently feeding it to a treatment furnace via a transporting channel so that rinsing gas in the region of both the channel and the treatment furnace rises by flowing from the porous plugs. The rinsing gas containing 30-70% reduction gas and 70-30% inert gas flows from at least one of the plugs. The melt is electrically heated/moved in the treatment furnace. An independent claim is also included for an apparatus for reducing the oxygen content of a copper melt comprising a treatment furnace (1) having an inlet (2), a central part (12) and an outlet (3). Preferred Features: The reduction gas is provided with carbon monoxide, preferably carbon dioxide. The porous plug is made of Al₂O₃, SiC, SiO₂ or MgO.

IPC 1-7

C22B 15/14; C22B 9/05

IPC 8 full level

C22B 9/05 (2006.01); **C22B 15/00** (2006.01); **C22B 15/14** (2006.01)

CPC (source: EP US)

C22B 9/05 (2013.01 - EP US); **C22B 15/006** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

WO 0208476 A1 20020131; AT E290613 T1 20050315; AU 7837001 A 20020205; CN 1271225 C 20060823; CN 1443248 A 20030917;
DE 10035593 A1 20020131; DE 50105546 D1 20050414; EP 1301642 A1 20030416; EP 1301642 B1 20050309; US 2004007091 A1 20040115;
US 7264767 B2 20070904

DOCDB simple family (application)

DE 0102316 W 20010621; AT 01956290 T 20010621; AU 7837001 A 20010621; CN 01813120 A 20010621; DE 10035593 A 20000721;
DE 50105546 T 20010621; EP 01956290 A 20010621; US 33322203 A 20030718