

Title (en)
ELECTROTHERMAL REDUCTION FURNACE

Publication
EP 0372236 A3 19910116 (DE)

Application
EP 89120536 A 19891106

Priority
DE 3840827 A 19881203

Abstract (en)
[origin: EP0372236A2] An electrothermal reduction furnace for producing yellow phosphorus from a batch mixture composed of rock phosphate, gravel and coke consists of a furnace vessel (1) closed with a reinforced concrete cover (6). In this arrangement, several batch charging pipes (7) and several SÖDERBERG electrodes (8) penetrate through the concrete cover (6). The electrodes (8) are enclosed in the area of their penetration of the concrete cover (6) by low-set electrode holders (9) exhibiting power supply plates (10). The electrodes (8) are hollow electrodes in which a central tube (12) is arranged in the centre in the sheet-metal jacket (11). Metal discs (13) are pulled onto the central tube (12) at a distance from one another. Furthermore, the central tube (12) is centred in the sheet-metal jacket (11) by means of spacing rods (14) distributed over the circumference.

IPC 1-7
H05B 7/09; F27D 11/04

IPC 8 full level
F27D 11/04 (2006.01); **H05B 7/09** (2006.01)

CPC (source: EP)
F27D 11/04 (2013.01); **H05B 7/09** (2013.01)

Citation (search report)
• [A] DE 529118 C 19310710 - JOSIAS REES
• [A] US 4133968 A 19790109 - FROLOV JURY F
• [A] US 3524004 A 19700811 - NOSTRAN JACK A VAN, et al

Cited by
US5854807A; US6452956B1; FR2770079A1; WO0011226A1; WO9851129A1

Designated contracting state (EPC)
DE NL

DOCDB simple family (publication)
EP 0372236 A2 19900613; EP 0372236 A3 19910116; EP 0372236 B1 19931027; CN 1017085 B 19920617; CN 1043557 A 19900704;
DE 3840827 A1 19900607

DOCDB simple family (application)
EP 89120536 A 19891106; CN 89108879 A 19891130; DE 3840827 A 19881203