

Title (en)

GAS-PERMEABLE REFRactory PLUG

Publication

EP 0146079 B1 19900307 (DE)

Application

EP 84114799 A 19841205

Priority

LU 85131 A 19831212

Abstract (en)

[origin: ES291744U] A gas-permeable element of a refractory material for blowing gases into a metal treatment vessel through its lining has a body of a refractory material, a metal housing on the longitudinal sides of the refractory body, a free inner end surface at which the refractory material is exposed, an outer end surface provided with a gas distributing chamber for a gas supply, at least one local opening extending in the interior of the refractory body for a gas passage between the end surfaces and provided with a metal insert, wherein the metal insert is formed as a laterally closed small channel, the gas-distributing chamber is separated from the refractory material by a metal sheet plate, and the metal channel is tightly mounted in the metal sheet plate so that the refractory material is maintained free from loading with a gas pressure.

IPC 1-7

C21C 5/48; C21C 7/072

IPC 8 full level

B22D 1/00 (2006.01); **C21C 5/44** (2006.01); **C21C 5/48** (2006.01); **C21C 7/072** (2006.01)

CPC (source: EP KR US)

B22D 1/005 (2013.01 - EP US); **C21C 5/44** (2013.01 - KR); **C21C 5/48** (2013.01 - EP US)

Cited by

EP0311785A1; DE3625117C1; DE4335643C1; EP0239152A1; DE4411538C1; DE3538498A1; DE4101833A1; EP0467042A3; EP0282824A3; FR2612433A1; DE19542446A1; DE19542446C2; EP0525591A1; DE3904543A1; WO9718335A3

Designated contracting state (EPC)

AT BE DE FR GB IT NL SE

DOCDB simple family (publication)

EP 0146079 A2 19850626; EP 0146079 A3 19870107; EP 0146079 B1 19900307; AT E50797 T1 19900315; AU 3645584 A 19860619; AU 566336 B2 19871015; BR 8406349 A 19851008; CA 1247861 A 19890103; DE 3481527 D1 19900412; ES 291744 U 19860501; ES 291744 Y 19870301; IN 162802 B 19880709; JP S60149709 A 19850807; KR 850004990 A 19850819; LU 85131 A1 19850912; US 4647020 A 19870303; ZA 849690 B 19850731

DOCDB simple family (application)

EP 84114799 A 19841205; AT 84114799 T 19841205; AU 3645584 A 19841210; BR 8406349 A 19841211; CA 469956 A 19841212; DE 3481527 T 19841205; ES 291744 U 19841212; IN 975MA1984 A 19841211; JP 26264384 A 19841212; KR 840007862 A 19841212; LU 85131 A 19831212; US 68121584 A 19841212; ZA 849690 A 19841212