

Title (en)

METALLOTHERMIC REDUCTION OF RARE EARTH OXIDES WITH CALCIUM METAL

Publication

**EP 0170372 B1 19880817 (EN)**

Application

**EP 85304046 A 19850607**

Priority

US 62773684 A 19840703

Abstract (en)

[origin: EP0170372A1] Rare earth oxides can be reduced to rare earth metals by, a novel, high yield, metallothermic process. The oxides are dispersed in a suitable, molten, calcium chloride-based bath (44) along with calcium metal. The bath (44) is agitated and calcium metal reduces the rare earth oxides to rare earth metals. The metals collect in a discrete layer (43) in the reaction vessel (22).

IPC 1-7

**C22B 59/00; C22B 5/04**

IPC 8 full level

**C22B 26/20** (2006.01); **C22B 5/04** (2006.01); **C22B 59/00** (2006.01)

CPC (source: EP KR)

**C22B 5/00** (2013.01 - KR); **C22B 5/04** (2013.01 - EP); **C22B 59/00** (2013.01 - EP)

Cited by

EP0265413A3; EP0254251A3; EP0343378A1; CN103436718A; US2013056193A1; CN111139366A; EP0364089A1; EP0319770A1; EP0238185A1; AU584494B2; US11607734B2; WO2009139667A1; WO2004007808A1

Designated contracting state (EPC)

AT DE FR GB IT NL SE

DOCDB simple family (publication)

**EP 0170372 A1 19860205; EP 0170372 B1 19880817**; AT E36560 T1 19880915; AU 4448885 A 19860109; AU 575965 B2 19880811; BR 8503140 A 19860318; DE 3564451 D1 19880922; ES 544799 A0 19870101; ES 8702508 A1 19870101; JP S6130639 A 19860212; JP S6137341 B2 19860823; KR 860001203 A 19860224; KR 910001581 B1 19910316; MX 173880 B 19940407; ZA 854474 B 19860326

DOCDB simple family (application)

**EP 85304046 A 19850607**; AT 85304046 T 19850607; AU 4448885 A 19850702; BR 8503140 A 19850628; DE 3564451 T 19850607; ES 544799 A 19850702; JP 14645085 A 19850703; KR 850004710 A 19850701; MX 2661685 A 19850628; ZA 854474 A 19850613