Title (en)

ILMENITE PROCESSING USING COLD MILLING

Title (de)

HERSTELLUNG VON ILMENIT DURCH KALTMAHLEN

Title (fr)

TRAITEMENT DE L'ILMENITE PAR BROYAGE A FROID

Publication

EP 0719346 A1 19960703 (EN)

Application

EP 94927454 A 19940913

Priority

- AU 9400550 W 19940913
- AU PM117793 A 19930913

Abstract (en)

[origin: WO9508004A1] High energy ball milling of particulate ilmenite (or other titaniferous ore) at room temperature, for periods of up to 300 hours, in the presence of a suitable additive, produces a nanostructural powder from which at least a major proportion of the iron in the titaniferous ore can be leached. The additive may be a reducing agent (for example, amorphous boron), a long chained hydrocarbon (for example, dodecane) or a surfactant (preferably dihexadecy1 dimethyl ammonium acetate, or didodecyl dimethyl ammonium bromide, or didodecyl dimethyl ammonium acetate, or didodecyl dimethyl ammonium hydroxide, or sodium didodecyl sulphate). The leaching is preferably effected using 4M hydrochloric acid at a temperature of from 80 DEG C to 100 DEG C.

IPC 1-7

C22B 1/00; C22B 34/12; C22B 3/04; C22B 3/10

IPC 8 full level

C22B 1/00 (2006.01); **C22B 3/04** (2006.01); **C22B 34/12** (2006.01)

CPC (source: EP)

C22B 34/1209 (2013.01); **C22B 34/1236** (2013.01); **C22B 34/1245** (2013.01)

Cited by

DE10124523A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

WO 9508004 A1 19950323; CA 2169947 A1 19950323; EP 0719346 A1 19960703; EP 0719346 A4 19970507; JP H09504829 A 19970513; NZ 273552 A 19961220; ZA 947050 B 19950807

DOCDB simple family (application)

AU 9400550 W 19940913; CA 2169947 A 19940913; EP 94927454 A 19940913; JP 50886795 A 19940913; NZ 27355294 A 19940913; ZA 947050 A 19940913