

Title (en)

METHOD AND DEVICE FOR CARRYING OUT A TRIBOCHEMICAL REACTION

Title (de)

VERFAHREN UND VORRICHTUNG ZUM DURCHFÜHREN EINER TRIBOCHEMISCEN REAKTION

Title (fr)

PROCEDE ET DISPOSITIF POUR EFFECTUER UNE REACTION TRIBOCHIMIQUE

Publication

EP 1558774 B1 20080206 (DE)

Application

EP 03773570 A 20031022

Priority

- DE 0303525 W 20031022
- DE 10249163 A 20021022

Abstract (en)

[origin: WO2004038048A1] The invention relates to a method and device for carrying out a tribochemical reaction, during which Faraday instabilities are produced by the spatial to-and-fro movement of a medium that is granular, grainy or made of balls. Tribochemical reaction conditions are produced with the aid of Faraday instabilities at points of contact of particles of the medium. The medium can either participate in the reaction or behave inertly with regard to the other educts. The method is suited for extracting (raw) titanium and titanium oxide from titaniferous minerals, for example, ilmenite and rutile.

IPC 8 full level

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

CPC (source: EP)

C22B 1/00 (2013.01); **C22B 34/1204** (2013.01); **C22B 34/1209** (2013.01); **C22B 34/1222** (2013.01); **C22B 34/1281** (2013.01); **C22B 34/129** (2013.01)

Citation (examination)

MELO F.; UMBANHOWAR P.B.; SWINNEY H.L.: "Hexagons, Kinks, and Disorder in Oscillated Granular Layers", PHYSICAL REVIEW LETTERS, vol. 75, no. 21, 20 November 1995 (1995-11-20), pages 3838 - 3842

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AU2011270833B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2004038048 A1 20040506; AT E385523 T1 20080215; AU 2003281966 A1 20040513; CN 100493784 C 20090603; CN 1726294 A 20060125; DE 10249163 A1 20040506; DE 50309132 D1 20080320; EP 1558774 A1 20050803; EP 1558774 B1 20080206

DOCDB simple family (application)

DE 0303525 W 20031022; AT 03773570 T 20031022; AU 2003281966 A 20031022; CN 200380106162 A 20031022; DE 10249163 A 20021022; DE 50309132 T 20031022; EP 03773570 A 20031022