

Title (en)

DEVICE AND METHOD FOR SEPARATING MATERIALS

Title (de)

VORRICHTUNG UND VERFAHREN ZUM TRENNEN VON WERKSTOFFEN

Title (fr)

DISPOSITIF ET PROCEDE POUR SECTIONNER DES MATERIAUX

Publication

EP 1224067 A1 20020724 (DE)

Application

EP 01984580 A 20011017

Priority

- DE 10055286 A 20001108
- EP 0112032 W 20011017

Abstract (en)

[origin: WO0238349A1] The invention relates to a device and to a method for separating materials, especially monocrystals, especially by annular sawing. Said device comprises a cutting disk (2) with a concentric hole whose edge (3) forms a cutting edge. Said cutting disk (2) is rotated about its center axis for cutting the monocrystal (1). The device also comprises a positioning device for positioning the monocrystal (1) to be cut in such a manner with respect to the cutting disk that the cutting disk, during cutting, moves through the monocrystal, thereby cutting off a part (1a) from the monocrystal (1). The device is further provided with a means for feeding a coolant/lubricant to the cutting disk (2). Said means (10) for feeding a coolant/lubricant is mounted in such a manner that it returns the coolant/lubricant on the outlet side downstream of the point of passage of the cutting disk (2) through the monocrystal (1), when seen in the direction of rotation. The device further comprises a device for feeding pressurized air (12).

IPC 1-7

B28D 5/00; **B23D 59/02**

IPC 8 full level

B28D 5/02 (2006.01); **B23D 59/02** (2006.01); **B28D 5/00** (2006.01); **B28D 7/02** (2006.01)

CPC (source: EP US)

B28D 5/0076 (2013.01 - EP US)

Citation (search report)

See references of WO 0238349A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

WO 0238349 A1 20020516; AT E271962 T1 20040815; CN 100396460 C 20080625; CN 101066616 A 20071107; CN 1394161 A 20030129; CZ 20022365 A3 20021016; CZ 301194 B6 20091202; DE 10055286 A1 20020523; DE 50102989 D1 20040902; EP 1224067 A1 20020724; EP 1224067 B1 20040728; JP 2004512989 A 20040430; JP 2008135712 A 20080612; JP 4302979 B2 20090729; RU 2002118120 A 20040120; RU 2271927 C2 20060320; SK 286415 B6 20080905; SK 9782002 A3 20021203; TW 590842 B 20040611; US 2003005919 A1 20030109

DOCDB simple family (application)

EP 0112032 W 20011017; AT 01984580 T 20011017; CN 01803489 A 20011017; CN 200710106581 A 20011017; CZ 20022365 A 20011017; DE 10055286 A 20001108; DE 50102989 T 20011017; EP 01984580 A 20011017; JP 2002540914 A 20011017; JP 2007260189 A 20071003; RU 2002118120 A 20011017; SK 9782002 A 20011017; TW 90127230 A 20011102; US 18109902 A 20020708