

Title (en)
SUB-MICRON RARE EARTH BORATE, A METHOD FOR THE PRODUCTION THEREOF AND THE USE IN THE FORM OF LUMINOPHOR

Title (de)
SUBMIKRON-SELTENERDMETALLBORAT, HERSTELLUNGSVERFAHREN DAFÜR UND VERWENDUNG IN FORM VON LUMINOPHOR

Title (fr)
BORATE DE TERRE RARE SUBMICRONIQUE, SON PROCÉDE DE PREPARATION ET SON UTILISATION COMME LUMINOPHORE

Publication
EP 1957407 A1 20080820 (FR)

Application
EP 06820165 A 20061009

Priority
• FR 2006002258 W 20061009
• FR 0510446 A 20051013

Abstract (en)
[origin: WO2007042653A1] The inventive rare earth borate is embodied in the form of a liquid phase suspension of substantially monocrystalline particles whose mean size ranges from 100 to 400 nm. Said borate is produced according to a method consisting in roasting a rare earth borocarbonate or hydroxyborocarbonate with a temperature which is sufficient for forming a borate and obtaining a product whose specific surface area is equal to or greater than 3 m²/g and in carrying out the humid grinding of the roasted product. The inventive borate can be used in the form of luminophor, in particular, for producing a luminescent transparent material.

IPC 8 full level
C01B 35/12 (2006.01); **C09K 11/77** (2006.01)

CPC (source: EP KR US)
C01B 35/12 (2013.01 - EP KR US); **C01B 35/127** (2013.01 - EP US); **C01B 35/128** (2013.01 - EP US); **C09K 11/02** (2013.01 - EP US); **C09K 11/77** (2013.01 - KR); **C09K 11/778** (2013.01 - EP US); **Y10T 428/2982** (2015.01 - EP US)

Citation (search report)
See references of WO 2007042653A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2007042653 A1 20070419; CN 101287680 A 20081015; CN 101287680 B 20121107; EP 1957407 A1 20080820; FR 2892113 A1 20070420; FR 2892113 B1 20071214; JP 2009511694 A 20090319; JP 2015214480 A 20151203; JP 5791865 B2 20151007; JP 6095726 B2 20170315; KR 101214720 B1 20121221; KR 101214729 B1 20121221; KR 20080059390 A 20080627; KR 20100082868 A 20100720; KR 20120044385 A 20120507; US 2010065780 A1 20100318; US 8980130 B2 20150317

DOCDB simple family (application)
FR 2006002258 W 20061009; CN 200680038296 A 20061009; EP 06820165 A 20061009; FR 0510446 A 20051013; JP 2008535055 A 20061009; JP 2015116742 A 20150609; KR 20087008765 A 20080411; KR 20107014886 A 20061009; KR 20127007500 A 20061009; US 8349206 A 20061009