

Title (en)
PROCESS FOR PRODUCTION OF BETA-SIALON

Title (de)
VERFAHREN ZUR HERSTELLUNG VON BETA-SIALON

Title (fr)
PROCÉDÉ DE PRODUCTION DE BETA-SIALON

Publication
EP 2623580 A8 20130925 (EN)

Application
EP 11828519 A 20110421

Priority
• JP 2010215759 A 20100927
• JP 2011059780 W 20110421

Abstract (en)
[origin: EP2623580A1] The purpose of the present invention is to provide a process for producing a ²-SiAlON having higher fluorescence intensity. The present invention relates to a process for producing a ²-SiAlON, which comprises a mixing step of mixing a raw material powder containing silicon, aluminum and europium, a burning step of burning the mixed raw material under the atmosphere of an inert gas or a non-oxidizing gas to produce a ²-SiAlON represented by the following general formula: Si 6-z Al z O z N 8-z :Eu (0 < z < 4.2), an annealing step of annealing the resulting ²-SiAlON, and a step of treating the annealed ²-SiAlON with an acid. The annealing is carried out under a reductive atmosphere at an atmospheric pressure of 100 kPa to 10 MPa inclusive at an atmospheric temperature of 1200 to 1600 DEG C inclusive for a treatment period of 1 to 24 hours inclusive.

IPC 8 full level
C09K 11/08 (2006.01); **C09K 11/64** (2006.01)

CPC (source: EP KR US)
C09K 11/08 (2013.01 - KR); **C09K 11/0883** (2013.01 - EP US); **C09K 11/64** (2013.01 - KR); **C09K 11/77** (2013.01 - KR); **C09K 11/7701** (2013.01 - US); **C09K 11/77348** (2021.01 - EP KR US)

Citation (search report)
See references of WO 2012042957A1

Cited by
US9559271B2; EP3341449A4

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 2623580 A1 20130807; EP 2623580 A4 20141001; EP 2623580 A8 20130925; EP 2623580 B1 20170823; CN 103168086 A 20130619; CN 103168086 B 20141022; JP 5730319 B2 20150610; JP WO2012042957 A1 20140206; KR 101725857 B1 20170411; KR 20130088152 A 20130807; TW 201213508 A 20120401; TW I518169 B 20160121; US 2013300014 A1 20131114; WO 2012042957 A1 20120405

DOCDB simple family (application)
EP 11828519 A 20110421; CN 201180046132 A 20110421; JP 2011059780 W 20110421; JP 2012536243 A 20110421; KR 20137009081 A 20110421; TW 100126901 A 20110729; US 201113825866 A 20110421