

Title (en)
POLYCRYSTALLINE DIAMOND

Title (de)
POLYKRISTALLINER DIAMANT

Title (fr)
DIAMANT POLYCRYSTALLIN

Publication
EP 2569457 A1 20130320 (EN)

Application
EP 11727774 A 20110513

Priority

- US 33496610 P 20100514
- GB 201008093 A 20100514
- IB 2011052115 W 20110513

Abstract (en)
[origin: GB2480384A] A PCD body comprises a skeletal mass of inter-bonded diamond grains 22 defining interstices 24 between them. At least some of the interstices contain a filler material comprising a metal catalyst material for diamond, the filler material containing Ti, W and an additional element M selected from the group consisting of V, Y, Nb, Hf, Mo, Ta, Zr Cr, Zr and the rare earth elements. The content of Ti within the filler material is at least 0.1 weight % and at most 20 weight %. The content of M within the filler material is at least 0.1 weight % and at most 20 weight %, and the content of W within the filler material is at least 5 weight % and at most 50 weight % of the filler material.

IPC 8 full level
C22C 26/00 (2006.01); **B22F 3/15** (2006.01); **C04B 35/00** (2006.01); **E21B 10/00** (2006.01)

CPC (source: EP GB US)
B22F 7/06 (2013.01 - EP); **B23B 27/22** (2013.01 - GB); **C04B 35/52** (2013.01 - EP GB); **C04B 35/5607** (2013.01 - EP);
C04B 35/5626 (2013.01 - EP); **C04B 35/6265** (2013.01 - EP); **C04B 35/62818** (2013.01 - EP); **C04B 35/62826** (2013.01 - EP);
C04B 35/62831 (2013.01 - EP); **C04B 35/62842** (2013.01 - EP); **C04B 35/62886** (2013.01 - EP); **C04B 35/62892** (2013.01 - EP);
C04B 35/62894 (2013.01 - EP); **C04B 35/645** (2013.01 - EP); **C09K 3/14** (2013.01 - GB); **C22C 1/05** (2013.01 - EP);
C22C 26/00 (2013.01 - EP GB); **E21B 10/46** (2013.01 - GB); **E21B 10/48** (2013.01 - GB); **E21B 10/50** (2013.01 - GB); **E21B 10/52** (2013.01 - GB);
E21B 10/567 (2013.01 - EP GB US); **B22F 2005/001** (2013.01 - EP); **C04B 2235/3839** (2013.01 - EP); **C04B 2235/3843** (2013.01 - EP);
C04B 2235/3847 (2013.01 - EP); **C04B 2235/427** (2013.01 - EP); **C04B 2235/441** (2013.01 - EP); **C04B 2235/5436** (2013.01 - EP);
C04B 2235/5445 (2013.01 - EP); **C04B 2235/5472** (2013.01 - EP); **C04B 2235/656** (2013.01 - EP); **C04B 2235/6567** (2013.01 - EP)

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)

GB 201107990 D0 20110629; GB 2480384 A 20111116; CA 2799305 A1 20111117; CN 103038380 A 20130410; CN 103038380 B 20180605;
EP 2569457 A1 20130320; GB 201008093 D0 20100630; WO 2011141898 A1 20111117

DOCDB simple family (application)

GB 201107990 A 20110513; CA 2799305 A 20110513; CN 201180033402 A 20110513; EP 11727774 A 20110513; GB 201008093 A 20100514;
IB 2011052115 W 20110513