

Title (en)
ELEMENT CONTAINING THERMALLY STABLE POLYCRYSTALLINE DIAMOND MATERIAL AND METHODS AND ASSEMBLIES FOR FORMATION THEREOF

Title (de)
ELEMENT MIT THERMISCH STABLEM POLYKRISTALLINEM DIAMANTMATERIAL SOWIE VERFAHREN UND ANORDNUNGEN ZU SEINER HERSTELLUNG

Title (fr)
ÉLÉMENT CONTENANT UNE MATIÈRE DE DIAMANT POLYCRISTALLIN THERMIQUEMENT STABLE ET PROCÉDÉS ET ENSEMBLES POUR SA FORMATION

Publication
EP 2718474 A2 20140416 (EN)

Application
EP 12728908 A 20120609

Priority

- US 201161495670 P 20110610
- US 201113225134 A 20110902
- US 201213457088 A 20120426
- US 201213457009 A 20120426
- US 2012041778 W 20120609

Abstract (en)
[origin: WO2012170970A2] The disclosure provides a super abrasive element containing a substantially catalyst-free thermally stable polycrystalline diamond (TSP) body having pores and a contact surface, a base adjacent the contact surface of the TSP body; and an infiltrant material infiltrated in the base and in the pores of the TSP body at the contact surface. The disclosure additionally provides earth-boring drill bits and other devices containing such super abrasive elements. The disclosure further provides methods and mold assemblies for forming such super abrasive elements via infiltration and hot press methods

IPC 8 full level
C22C 26/00 (2006.01)

CPC (source: EP)
C22C 26/00 (2013.01); **E21B 10/5735** (2013.01); **B22F 2999/00** (2013.01); **C22C 2204/00** (2013.01)

Citation (search report)
See references of WO 2012170970A2

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)
WO 2012170970 A2 20121213; WO 2012170970 A3 20130207; AU 2012267485 A1 20131219; AU 2012267485 B2 20151119; CA 2838822 A1 20121213; CA 2838822 C 20161122; CN 104185689 A 20141203; CN 104185689 B 20170426; EP 2718474 A2 20140416; KR 101954354 B1 20190305; KR 20140074879 A 20140618

DOCDB simple family (application)
US 2012041778 W 20120609; AU 2012267485 A 20120609; CA 2838822 A 20120609; CN 201280038918 A 20120609; EP 12728908 A 20120609; KR 20147000776 A 20120609