

Title (en)

METHOD FOR MANUFACTURING SYNTHETIC DIAMOND AND DEVICE FOR IMPLEMENTING THIS METHOD

Title (de)

VERFAHREN ZUR HERSTELLUNG VON SYNTHETISCHEM DIAMANT UND VORRICHTUNG ZUR DURCHFÜHRUNG DES VERFAHREN

Title (fr)

PROCEDE DE FABRICATION DE DIAMANT SYNTHETIQUE ET DISPOSITIF POUR LA MISE EN OEUVRE DE CE PROCEDE

Publication

**EP 0938450 A1 19990901 (FR)**

Application

**EP 97936554 A 19970902**

Priority

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- CH 218296 A 19960905

Abstract (en)

[origin: WO9809914A1] The invention concerns a method for manufacturing synthetic diamond comprising the following steps: providing a mixture containing carbon and a metal catalyst, the carbon being in a solution and/or mounted in the metal catalyst which has a density higher than that of the carbon; providing a recipient, pre-heating the recipient, heating the mixture to reduce it to liquid; pouring the mixture into the pre-heated recipient, hermetically closing the recipient; hydro-extracting the liquid mixture in the recipient so as to separate the metal catalyst and the carbon, the metal catalysing the carbon is brought towards the centre to form a carbon lump there; cooling the recipient and the mixture until the mixture is solidified, in order to cause the recipient and the catalyst to shrink and to create sufficient pressure on said lump, so as to recrystallise the carbon in the form of diamond; extracting the recrystallised carbon from the metal catalyst.

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