

Title (en)

METHOD OF PRODUCING AN N-TYPE DIAMOND WITH HIGH ELECTRICAL CONDUCTIVITY

Title (de)

VERFAHREN ZUR HERSTELLUNG VON N-TYP-DIAMANT MIT HOHER ELEKTRISCHER LEITFÄHIGKEIT

Title (fr)

PROCEDE D ELABORATION DE DIAMANT DE TYPE N A HAUTE CONDUCTIV ITE ELECTRIQUE

Publication

EP 1568072 A1 20050831 (FR)

Application

EP 03796163 A 20031204

Priority

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- FR 0215453 A 20021206

Abstract (en)

[origin: FR2848335A1] The production of an n type diamond incorporates an n type doping stage, in which a donor species is made to diffuse under vacuum into a diamond initially doped with an acceptor, in order to form with it donor groups containing the donor species, at a temperature of less than or equal to the dissociation temperature for the complexes formed between the acceptor and the donor species. An Independent claim is also included for n type diamond doped with hydrogen and boron and possessing a conductivity at 300 K greater than or essentially equal to 1 OMEGA-1cm-1.

IPC 1-7

H01L 21/04; **H01L 21/223**; **H01L 21/205**; **C30B 29/04**

IPC 8 full level

C30B 31/00 (2006.01); **C30B 31/06** (2006.01); **H01L 21/04** (2006.01); **H01L 21/223** (2006.01); **H01L 21/205** (2006.01)

CPC (source: EP US)

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Citation (search report)

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