

Title (en)

ELECTRODE AND ELECTRON EMISSION APPLICATIONS FOR N-TYPE DOPED NANOCRYSTALLINE MATERIALS

Title (de)

ELEKTRODE UND ELEKTRONENEMISSIONSVERWENDUNGEN FÜR N-DOTIERTE NANOKRISTALLINE MATERIALIEN

Title (fr)

ELECTRODE ET APPLICATIONS D'EMISSION D'ELECTRONS POUR DES MATIERES NANOCRISTALLINES DOPEES DE TYPE N

Publication

EP 1330846 A4 20041215 (EN)

Application

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Priority

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- US 23917300 P 20001009
- US 31414201 P 20010822

Abstract (en)

[origin: WO0231839A1] An electrically conducting n-type ultrananocrystalline diamond (UNCD) having no less than 10^{19} atoms/cm³ of nitrogen is disclosed. A method of making the n-doped UNCD. A method for predictably controlling the conductivity is also disclosed.

IPC 1-7

H01L 31/0312; **H01B 1/04**; **B01J 3/06**; **H01L 31/0368**

IPC 8 full level

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CPC (source: EP US)

B01J 3/067 (2013.01 - EP); **C01B 32/25** (2017.07 - EP US); **C01B 32/26** (2017.07 - EP US); **C23C 16/274** (2013.01 - EP US); **C23C 16/277** (2013.01 - EP); **C23C 16/278** (2013.01 - EP); **C23C 16/279** (2013.01 - EP); **C30B 25/105** (2013.01 - EP); **C30B 29/04** (2013.01 - EP); **C30B 29/605** (2013.01 - EP); **H01B 1/04** (2013.01 - EP); **H01J 1/30** (2013.01 - EP); **B01J 2203/0655** (2013.01 - EP); **H01J 2201/30457** (2013.01 - EP)

Citation (search report)

- [X] US 5973451 A 19991026 - GEIS MICHAEL W [US], et al
- [X] US 5713775 A 19980203 - GEIS MICHAEL W [US], et al
- See references of WO 0231891A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

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US 0131528 W 20011009; AU 1150502 A 20011009; AU 1155502 A 20011009; EP 01979558 A 20011009; JP 2002535177 A 20011009; US 0131388 W 20011009