

Title (en)  
DOPED DIAMOND

Title (de)  
DOTIERTER DIAMANT

Title (fr)  
DIAMANT DOP

Publication  
**EP 1194619 A1 20020410 (EN)**

Application  
**EP 00938963 A 20000629**

Priority  
• IB 0000870 W 20000629  
• ZA 994349 A 19990702

Abstract (en)  
[origin: WO0102628A1] A method of forming flaws with high configurational energies in a diamond crystal lattice includes the steps of subjecting the diamond crystal lattice to ion implantation to replace some of the diamond crystal lattice atoms with dopant atoms such as Group VI dopant atoms, to produce a doped diamond, and annealing the doped diamond at a temperature which maximises the density of high energy flaws which form shallow dopant states.

IPC 1-7  
**C30B 31/22**; **C30B 33/00**; **C30B 29/04**

IPC 8 full level  
**C30B 29/04** (2006.01); **C30B 31/22** (2006.01); **C30B 33/00** (2006.01); **H01L 21/265** (2006.01)

CPC (source: EP KR)  
**C30B 29/04** (2013.01 - EP); **C30B 31/22** (2013.01 - EP KR); **C30B 33/00** (2013.01 - EP)

Citation (search report)  
See references of WO 0102628A1

Citation (examination)  
WO 0073543 A1 20001207 - DE BEERS IND DIAMOND [ZA], et al

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**WO 0102628 A1 20010111**; AU 5418200 A 20010122; EP 1194619 A1 20020410; JP 2003504838 A 20030204; KR 20020034147 A 20020508

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**IB 0000870 W 20000629**; AU 5418200 A 20000629; EP 00938963 A 20000629; JP 2001508397 A 20000629; KR 20027000007 A 20020102