

Title (en)  
SEMICONDUCTOR-ON-INSULATOR SUBSTRATE COMPRISING A BURIED DIAMOND-LIKE CARBON LAYER AND METHOD FOR MAKING SAME

Title (de)  
HALBLEITER-AUF-ISOLATOR-SUBSTRAT MIT EINER VERGRABENEN DIAMANTARTIGEN KOHLENSTOFFSCHICHT UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)  
SUBSTRAT DE TYPE SEMI-CONDUCTEUR SUR ISOLANT COMPORTANT UNE COUCHE ENTERREE EN CARBONE DIAMANT ET PROCEDE DE REALISATION D'UN TEL SUBSTRAT

Publication  
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Application  
**EP 05744615 A 20050325**

Priority  
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• FR 0403071 A 20040325

Abstract (en)  
[origin: WO2005093823A1] The invention concerns a substrate comprising successively a base (1), a diamond-like carbon layer (3), a dielectric layer (4) and a semiconductor material layer (5) designed to constitute microelectronic components. A nucleating layer (2) is preferably arranged between the base (1) and the diamond-like carbon layer (3). The dielectric material (4) is selected such that the upper level (E<sub>di</sub>) of the valence band of the dielectric material (4) is lower than the upper level (E<sub>cd</sub>) of the valence band of the diamond-like carbon (3). The semiconductor material (5) is selected so that the upper level (E<sub>sc</sub>) of the valence band of the semiconductor material (5) is higher than the upper level (E<sub>cd</sub>) of the valence band of the diamond-like carbon (3). The substrate can be made by successive depositions or by assembling first and second stacks.

IPC 8 full level  
**H01L 21/762** (2006.01)

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**H01L 21/76251** (2013.01 - EP US); **H01L 21/76254** (2013.01 - EP US)

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