

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

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Application
EP 05744615 A 20050325

Priority

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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_{di}) of the valence band of the dielectric material (4) is lower than the upper level (E_{cd}) of the valence band of the diamond-like carbon (3). The semiconductor material (5) is selected so that the upper level (E_{sc}) of the valence band of the semiconductor material (5) is higher than the upper level (E_{cd}) 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.

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H01L 21/762 (2006.01)

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