

Title (en)

METHOD FOR THE ORGANISED GROWTH OF NANOSTRUCTURES

Title (de)

VERFAHREN ZUM ORGANISIERTEN WACHSENLASSEN VON NANOSTRUKTUREN

Title (fr)

CROISSANCE ORGANISEE DE NANO-STRUCTURES

Publication

EP 1697559 A1 20060906 (FR)

Application

EP 04816590 A 20041221

Priority

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Abstract (en)

[origin: FR2864109A1] The procedure consists of forming nucleation sites (4) by irradiating a dielectric substrate (2) with an ion beam giving localised deposition of atoms that form the sites, and then growing the structures on the sites by vapour phase chemical deposition. The substrate can be of silicon or aluminium dioxide or silicon nitride, and the nucleation sites are formed on it with a beam of silicon or germanium ions for growing nano-structures of a semiconductor material with the aid of dichlorosilane or germanium and a gas precursor. The nano-structures formed are three-dimensional with a maximum diameter of 1 - 15 nm, and can be of silicon carbide, diamond, gallium arsenide, nitride or phosphide, or of metal.

IPC 8 full level

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