

Title (en)

METHOD FOR PRODUCING NANOMETER STRUCTURES ON SEMICONDUCTOR SURFACES

Title (de)

VERFAHREN ZUR HERSTELLUNG VON NANOMETERSTRUKTUREN AUF HALBLEITEROBERFLÄCHEN

Title (fr)

PROCEDE PERMETTANT DE PRODUIRE DES STRUCTURES DE L'ORDRE DU NANOMETRE SUR DES SURFACES DE SEMI-CONDUCTEURS

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Abstract (en)

[origin: WO0017094A1] The invention relates to a method for producing regular nanometer structures on semiconductor surfaces, especially regular pyramid and wave structures, which comprise a narrow size distribution and dimensions ranging from 2 to 100 nm, especially 10-60 nm, particularly in diameter or width and height. The invention is characterized in that a semiconductor material is used which is comprised of at least two and preferably two components thus forming a compound semiconductor. In addition, optionally neutralized noble gas ions from an ion source comprising an energy ranging from 10 to 50000 eV, especially 50-2000 eV, are directed onto said compound semiconductor material, with which, under a vacuum and by means of ion sputtering, the surface of the material is removed until the nanometer structure is produced.

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