Title (en)
> FORMATION OF SILICON NANOSTRUCTURES

Title (de)
> BILDUNG VON SILICIUM-NANOSTRUKTUREN

Title (fr)
> FORMATION DE NANOSTRUCTURES EN SILICIUM

Publication
> **EP 1628908 A4 20070801 (EN)**

Application
> **EP 04707340 A 20040202**

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Abstract (en)
> [origin: WO2004067445A1] The present invention comprises a method of forming nanostructures on a silicon substrate including the steps of in a chamber heating the substrate with an electron beam to a peak temperature, holding the peak temperature for a predetermined time, and decreasing the temperature of the substrate. Neon and carbon ions may be implanted into the substrate before the step of heating the substrate to produce different nanostructures. Implanting with nitrogen before heating prevents the formation of nanostructures. Plasma immersion ion implantation with nitrogen ions before heating also forms nanostructures.

IPC 8 full level
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Citation (search report)
- [X] GB 2287825 A 19950927 - UNIV SURREY [GB]
- [A] EP 0969126 A2 20000105 - JP NATIONAL RESEARCH INST FOR [JP]
- [A] LU M L: "THERMAL REGROWTH OF SILICON(111) SURFACE DURING ION BOMBARDMENT", APPLIED PHYSICS LETTERS, AIP, AMERICAN INSTITUTE OF PHYSICS, MELVILLE, NY, US, vol. 40, no. 11, June 1982 (1982-06-01), pages 986 - 987, XP000817120, ISSN: 0003-6951
- See references of WO 2004067445A1

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