

Title (en)

LOW-TEMPERATURE PROCESS FOR FORMING AN EPITAXIAL LAYER ON A SEMICONDUCTOR SUBSTRATE

Title (de)

NIEDRIGTEMPERATURVERFAHREN ZUR HERSTELLUNG EPITAKTISCHER SCHICHTEN AUF EIN HALBLEITERSUBSTRAT

Title (fr)

PROCEDE BASSE TEMPERATURE PERMETTANT DE FORMER UNE COUCHE EPITAXIALE SUR UN SUBSTRAT SEMICONDUCTEUR

Publication

EP 1114210 A4 20030416 (EN)

Application

EP 99945264 A 19990826

Priority

- US 9919684 W 19990826
- US 9805798 P 19980826

Abstract (en)

[origin: WO0012785A1] A low temperature process for forming an epitaxial layer on a workpiece surface, without requiring ultrahigh vacuum or ultraclean conditions in the processing chamber during formation of the epitaxial layer. The process further allows for the simultaneous formation of an epitaxial layer on a plurality of workpieces (28). The workpieces are placed in chamber (12) with multi controlled heater (212) and controllers (308 and 306). The gas (250) is supplied via a pipe and panel (248) to control flow.

IPC 1-7

C30B 25/08; **C30B 25/14**; **C30B 25/16**; **C30B 25/10**; **C30B 25/02**

IPC 8 full level

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CPC (source: EP)

C30B 25/16 (2013.01); **C30B 29/06** (2013.01)

Citation (search report)

- [DA] US 4738618 A 19880419 - MASSEY ROBERT G [US], et al
- [DA] WO 9835531 A1 19980813 - SEMITOOL INC [US]
- [X] REGOLINI J L ET AL: "EPITAXIAL SILICON CHEMICAL VAPOR DEPOSITION BELOW ATMOSPHERIC PRESSURE", MATERIALS SCIENCE AND ENGINEERING B, ELSEVIER SEQUOIA, LAUSANNE, CH, vol. B04, no. 1/4, 1 October 1989 (1989-10-01), pages 407 - 415, XP000095491, ISSN: 0921-5107
- [X] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 13 30 November 1998 (1998-11-30) & US 6074478 A 20000613 - OGURO SHIZUO [JP]
- See references of WO 0012785A1

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