

Title (en)

APPARATUS FOR GROWING EPITAXIAL LAYERS ON WAFERS

Title (de)

VORRICHTUNG ZUR HERSTELLUNG VON SCHICHTEN AUF SCHEIBEN

Title (fr)

APPAREIL PERMETTANT DE FAIRE CROITRE DES COUCHES EPITAXIALES SUR DES PLAQUETTES

Publication

EP 1226292 A1 20020731 (EN)

Application

EP 00952166 A 20000724

Priority

- US 0019879 W 20000724
- US 14567299 P 19990726
- US 61925400 A 20000719

Abstract (en)

[origin: WO0107691A1] An apparatus for growing epitaxial layers includes a spindle (142) having an opening (158) extending between upper and lower ends. A rotatable platform (134) is mounted to the upper end of the spindle, the platform including a top surface (136), a bottom surface (138) and a central opening (140) in substantial alignment with the spindle opening (158). The deposition chamber also includes a substantially porous wafer carrier (124) having wafer-receiving cavities (128) positioned over the top surface (136) of platform (134) and having a hollow space (130) in substantial alignment with central opening (140) of the platform (134). Spindle opening (158) is desirably connected to a vacuum pump so that the pressure level within hollow space (130) of the wafer carrier (124) is less than the pressure level within deposition chamber, thereby creating suction within the wafer-receiving cavities (128) for maintaining the wafers (122) in a substantially flat orientation.

IPC 1-7

C30B 23/02; **C30B 25/12**; **C23C 16/458**

IPC 8 full level

C23C 16/44 (2006.01); **C23C 16/458** (2006.01); **C30B 25/12** (2006.01); **H01L 21/205** (2006.01); **H01L 21/683** (2006.01)

CPC (source: EP KR)

C23C 16/4412 (2013.01 - EP KR); **C23C 16/4584** (2013.01 - EP KR); **C30B 25/12** (2013.01 - EP KR); **H01L 21/6838** (2013.01 - EP KR)

Citation (search report)

See references of WO 0107691A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 0107691 A1 20010201; AU 6491600 A 20010213; EP 1226292 A1 20020731; JP 2004513857 A 20040513; KR 100565138 B1 20060330; KR 20020019574 A 20020312

DOCDB simple family (application)

US 0019879 W 20000724; AU 6491600 A 20000724; EP 00952166 A 20000724; JP 2001512955 A 20000724; KR 20027001052 A 20020125