Title (en)

BATCH FURNACE

Title (de)

BATCH-OFEN

Title (fr)

FOUR DE CUISSON PAR LOTS

Publication

EP 1540708 A2 20050615 (EN)

Application

EP 03766990 A 20030730

Priority

- US 0323849 W 20030730
- US 21175702 A 20020802
- US 31370702 A 20021205

Abstract (en)

[origin: WO2004013901A2] A system and method for isothermally distributing a temperature across a semiconductor device. A furnace assembly is provided, which includes a processing tube configured to removably receive a wafer carrier having a full compliment of semiconductor wafers. A heating assembly is provided which can include a heating element positioned to heat air or other gases allowed to enter the process tube. The furnace assembly and process tube are capable of being vertically raised and lowered into a position enclosing the heating assembly within the process tube. Once the heating assembly forms a seal with the process tube, the process tube is exhausted and purged of air. Gas is then allowed to flow into the process tube and exchange heat with the heating element. The heated gas circulates through the process tube to convectively change the temperature of the wafers.

IPC 1-7

H01L 21/00; C23C 16/455; C23C 16/453

IPC 8 full level

C23C 16/46 (2006.01); **H01L 21/00** (2006.01); **H01L 21/205** (2006.01); **H01L 21/26** (2006.01); **H01L 21/324** (2006.01)

CPC (source: EP KR)

C23C 16/46 (2013.01 - EP); **H01L 21/324** (2013.01 - KR); **H01L 21/67109** (2013.01 - EP); **H01L 21/67115** (2013.01 - EP)

Citation (search report)

See references of WO 2004013901A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2004013901 A2 20040212; **WO 2004013901 A3 20040610**; EP 1540708 A2 20050615; JP 2005535128 A 20051117; JP 4537201 B2 20100901; KR 100686401 B1 20070226; KR 20050062521 A 20050623

DOCDB simple family (application)

US 0323849 W 20030730; EP 03766990 A 20030730; JP 2004526235 A 20030730; KR 20057001871 A 20050201