

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 February 2001 (22.02.2001)

PCT

(10) International Publication Number
WO 01/13054 A1

(51) International Patent Classification⁷: F27B 5/14

(21) International Application Number: PCT/US00/22202

(22) International Filing Date: 11 August 2000 (11.08.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/373,894 12 August 1999 (12.08.1999) US
60/217,321 1 August 2000 (01.08.2000) US

(71) Applicant: SILICON VALLEY GROUP, INC. [US/US];
440 Kings Village Road, Scotts Valley, CA 95066 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

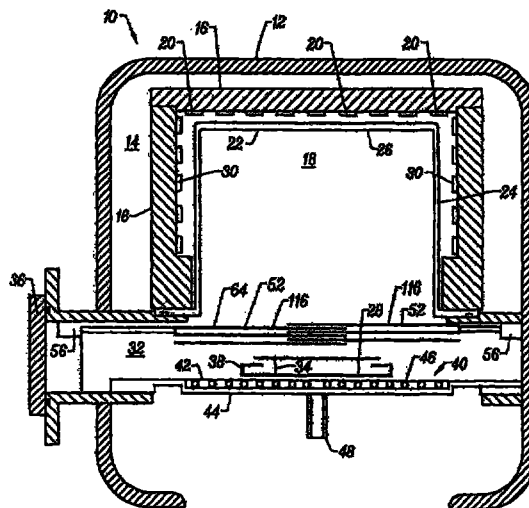
- With international search report.
- With amended claims.

(72) Inventors: RATLIFF, Christopher, T.; 190 Lakeview Drive, Felton, CA 95018 (US). KOWALSKI, Jeffrey, M.; 101 Grand Avenue, Capitola, CA 95010 (US). QIU, Taiqing; 126 Jackson Street, Newton, MA 02459 (US).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(74) Agents: TEST, Aldo, J. et al.; Flehr Hohbach Test Albritton & Herbert LLP, Suite 3400, 4 Embarcadero Center, San Francisco, CA 94111-4187 (US).

(54) Title: HOT WALL RAPID THERMAL PROCESSOR



(57) Abstract: An apparatus (10) for heat treatment of a wafer (28) is disclosed. The apparatus includes a heating chamber (18) having a heat source (20). A cooling chamber (32) is positioned adjacent to the heating chamber and includes a cooling source (40). A wafer holder (38) is configured to move between the cooling chamber and the heating chamber through a passageway (54) and one or more shutters (52) defines the size of the passageway. The one or more shutters are movable between an open position where the wafer holder can pass through the passageway and an obstructing position which defines a passageway which is smaller than the passageway defined when the shutter is in the open position.