(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
20 August 2009 (20.08.2009)

PCT

(10) International Publication Number
WO 2009/102589 A3

(51) International Patent Classification:
H01L 21/683 (2006.01) *H01L 21/687* (2006.01)

(21) International Application Number:
PCT/US2009/033032

(22) International Filing Date:
4 February 2009 (04.02.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
12/028,883 11 February 2008 (11.02.2008) US

(71) Applicant *(for all designated States except US)*: **APPLIED MATERIALS, INC.** [US/US]; 3050 Bowers Avenue, Santa Clara, California 95054 (US).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **BHATNAGAR, Ashish** [US/US]; 3243 Briggs Court, Fremont, California 94536 (US).

(74) Agents: **PATTERSON, B. Todd** et al.; Patterson & Sheridan, L.L.P., 3040 Post Oak Blvd., Suite 1500, Houston, Texas 77056-6582 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
5 November 2009

(54) Title: HIGH EFFICIENCY ELECTRO-STATIC CHUCKS FOR SEMICONDUCTOR WAFER PROCESSING

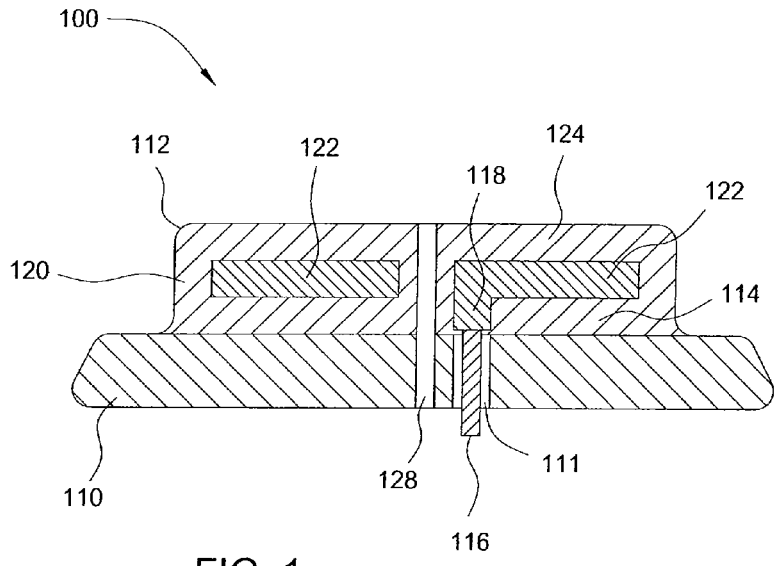


FIG. 1

(57) Abstract: The present invention generally provides a high efficiency electrostatic chuck for holding a substrate in a processing volume. The high efficiency electrostatic chuck includes an electrode embedded within a high-purity, thermoplastic member. In particular, the high-purity, thermoplastic member may include a high-purity, polyaryletherketone having an extremely low level of metallic ions present therein. The high-purity, polyaryletherketone has excellent wear resistance, high temperature resistance, plasma resistance, corrosive chemical resistance, electrical stability, and strength as compared to polyimide films used in electrostatic chucks. The present invention also provides a simplified method of manufacturing the high efficiency electrostatic chuck.

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