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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
24 April 2008 (24.04.2008)

PCT

(10) International Publication Number
WO 2008/048543 A1

(51) International Patent Classification:
H01L 21/205 (2006.01) *H01L 21/203* (2006.01)

(21) International Application Number:
PCT/US2007/021989

(22) International Filing Date: 16 October 2007 (16.10.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/851,745 16 October 2006 (16.10.2006) US
11/639,264 15 December 2006 (15.12.2006) US

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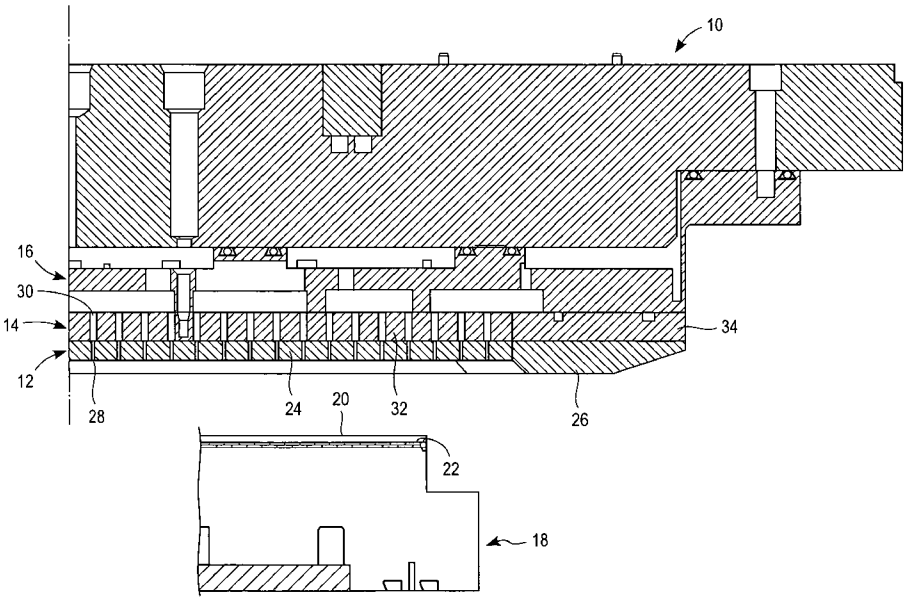
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(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, 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, 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),

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(54) Title: UPPER ELECTRODE BACKING MEMBER WITH PARTICLE REDUCING FEATURES



(57) Abstract: Components of a plasma processing apparatus includes a backing member with gas passages attached to an upper electrode with gas passages. To compensate for the differences in coefficient of thermal expansion between the metallic backing member and upper electrode, the gas passages are positioned and sized such that they are misaligned at ambient temperature and substantially concentric at an elevated processing temperature. Non-uniform shear stresses can be generated in the elastomeric bonding material, due to the thermal expansion. Shear stresses can either be accommodated by applying an elastomeric bonding material of varying thickness or using a backing member comprising of multiple pieces.

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European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

— *with international search report*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*