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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
9 January 2003 (09.01.2003)

PCT

(10) International Publication Number
WO 03/003448 A3

(51) International Patent Classification[7]: H01L 21/68, 21/00

(21) International Application Number: PCT/US02/17663

(22) International Filing Date: 5 June 2002 (05.06.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/892,458 28 June 2001 (28.06.2001) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:
US 09/892,458 (CON)
Filed on 28 June 2001 (28.06.2001)

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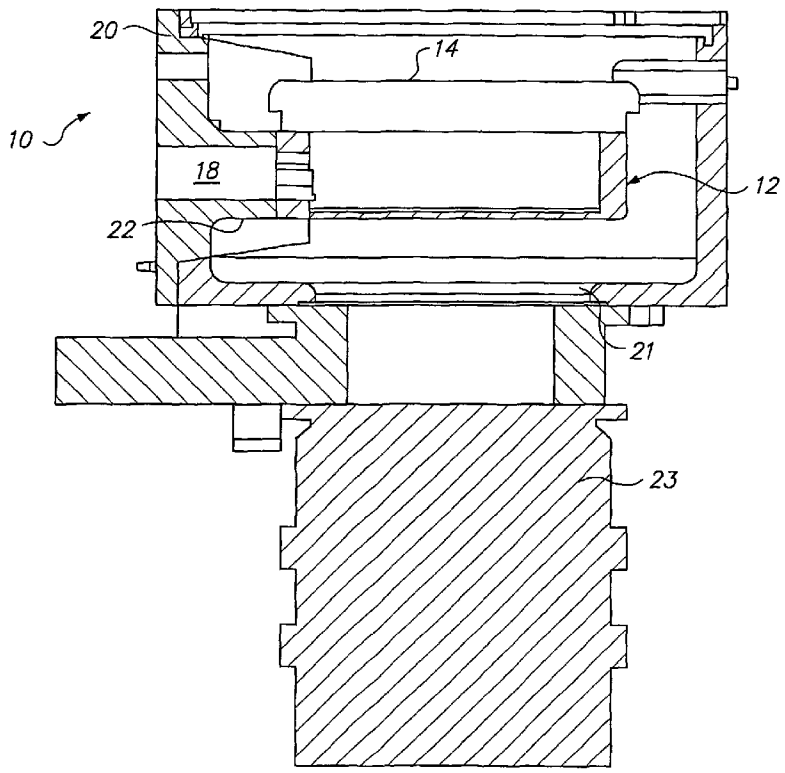
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(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,

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(54) Title: HIGH TEMPERATURE ELECTROSTATIC CHUCK



(57) Abstract: An electrostatic chuck suitable for use at high temperatures having a replaceable expansion assembly, functioning as an outer tubulation and heat choke, between a chuck body and a heat transfer body. The expansion assembly accommodates differential thermal stresses between the chuck body and the heat transfer body, and/or limits direct heat conduction from the chuck body to the heat transfer body. The ability to operate the chuck at temperatures in excess of 200 °C allows it to be used for plasma etching of materials, such as platinum, which require high temperatures to volatilize low volatility etch products as well as routine plasma etching, chemical vapor deposition, sputtering, ion implantation, ashing, etc. The novel design of the removably attached expansion assembly allows the chuck to be scaled for larger workpieces, to remain serviceable through more heating cycles, and to be economically serviced.

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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, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, 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, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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*

(88) Date of publication of the international search report:
8 May 2003

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.