

(19) World Intellectual Property Organization  
International Bureau



\*G00002\*

(43) International Publication Date  
18 April 2002 (18.04.2002)

PCT

(10) International Publication Number  
**WO 02/31859 A2**

(51) International Patent Classification<sup>7</sup>: **H01J 37/32**

**LENZ, Eric** [US/US]; 2662 Chocolate Street, Pleasanton, CA 94588 (US).

(21) International Application Number: PCT/US01/42611

(74) Agent: **PETERSON, James, W.**, Burns, Doane, Swecker & Mathis, LLP, P.O. Box 1404, Alexandria, VA 22313-1404 (US).

(22) International Filing Date: 10 October 2001 (10.10.2001)

(25) Filing Language: English

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

(26) Publication Language: English

(30) Priority Data:  
09/689,845 13 October 2000 (13.10.2000) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:  
US 09/689,845 (CON)  
Filed on 13 October 2000 (13.10.2000)

(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, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **LAM RESEARCH CORPORATION** [US/US], 4650 Cushing Parkway, Fremont, CA 94538 (US).

**Published:**

— without international search report and to be republished upon receipt of that report

(72) Inventors; and

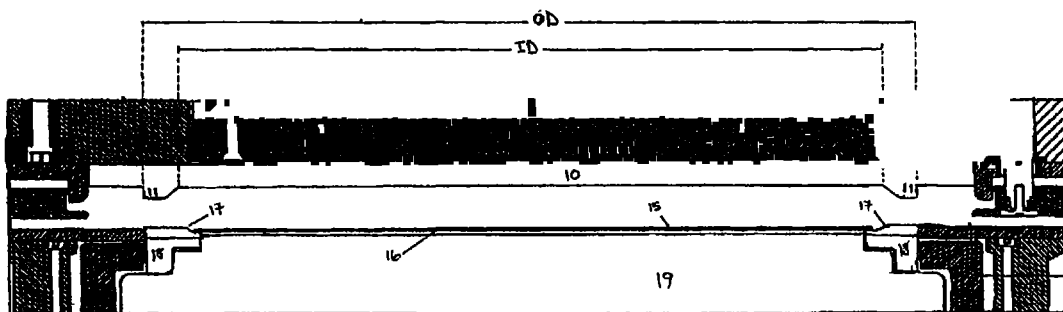
(75) Inventors/Applicants (*for US only*): **DHINDSA, Rajinder** [US/US], 2670 Rollingside Drive, San Jose, CA 95148 (US). **SRINIVASAN, Mukund** [IN/US], 3836 Springfield Common, Fremont, CA 94555 (US). **EPPLER, Aaron** [US/US]; 545 Elm Street, El Cerrito, CA 94530 (US).

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



\*162162\*

(54) Title: STEPPED UPPER ELECTRODE FOR PLASMA PROCESSING UNIFORMITY



(57) Abstract: A plasma discharge electrode having a front surface with a central portion thereof including gas outlets discharging a process gas which forms a plasma and a peripheral portion substantially surrounding the gas outlets. The peripheral portion has at least one step for controlling a density of the plasma formed by the electrode. The electrode can be used as the grounded upper electrode in a parallel plate plasma processing apparatus such as a plasma etching apparatus. The geometric features of the step and of a corresponding edge ring on the lower electrode can be varied to achieve the desired etch rate profile across a wafer surface.

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