

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
19 May 2022 (19.05.2022)



(10) International Publication Number
WO 2022/103544 A1

(51) International Patent Classification:
H01J 37/32 (2006.01)

(21) International Application Number:
PCT/US2021/054814

(22) International Filing Date:
13 October 2021 (13.10.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
17/099,342 16 November 2020 (16.11.2020) US
17/159,133 26 January 2021 (26.01.2021) US

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(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, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN,
KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO,
NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW,
SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,

(54) Title: APPARATUS AND METHODS FOR CONTROLLING ION ENERGY DISTRIBUTION

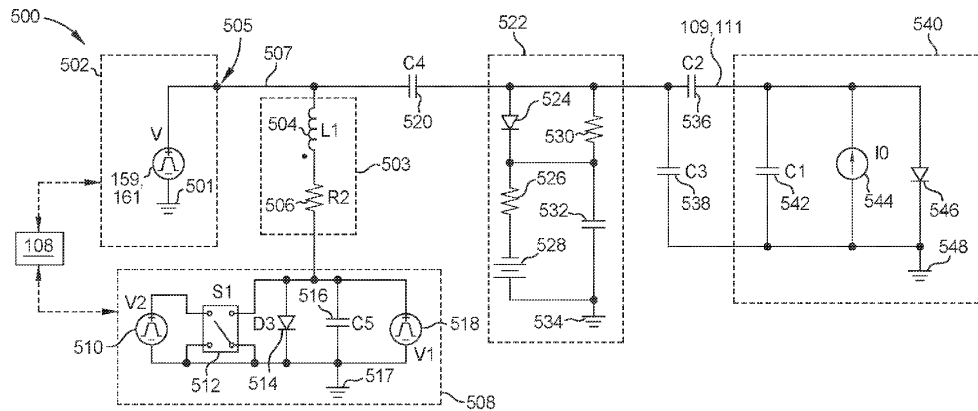


FIG. 5A

(57) Abstract: Embodiments of the present disclosure generally relate to apparatus and methods for controlling an ion energy distribution during plasma processing. In an embodiment, the apparatus includes a substrate support that has a body having a substrate electrode for applying a substrate voltage to a substrate, and an edge ring electrode embedded for applying an edge ring voltage to an edge ring. The apparatus further includes a substrate voltage control circuit coupled to the substrate electrode, and an edge ring voltage control circuit coupled to the edge ring electrode. The substrate electrode, edge ring electrode, or both are coupled to a power module configured to actively control an energy distribution function width of ions reaching the substrate, edge ring, or both. Methods for controlling an energy distribution function width of ions during substrate processing are also described.

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GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, 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, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

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