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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
06 January 2022 (06.01.2022)

WIPO | PCT

(10) International Publication Number
WO 2022/006326 A1

(51) International Patent Classification:
C23C 16/44 (2006.01) *H01J 37/32* (2006.01)
C23C 16/505 (2006.01) *C23C 16/455* (2006.01)

(21) International Application Number:
PCT/US2021/039973

(22) International Filing Date:
30 June 2021 (30.06.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/705,519 01 July 2020 (01.07.2020) 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,

(54) **Title:** INTERMITTENT STAGNANT FLOW

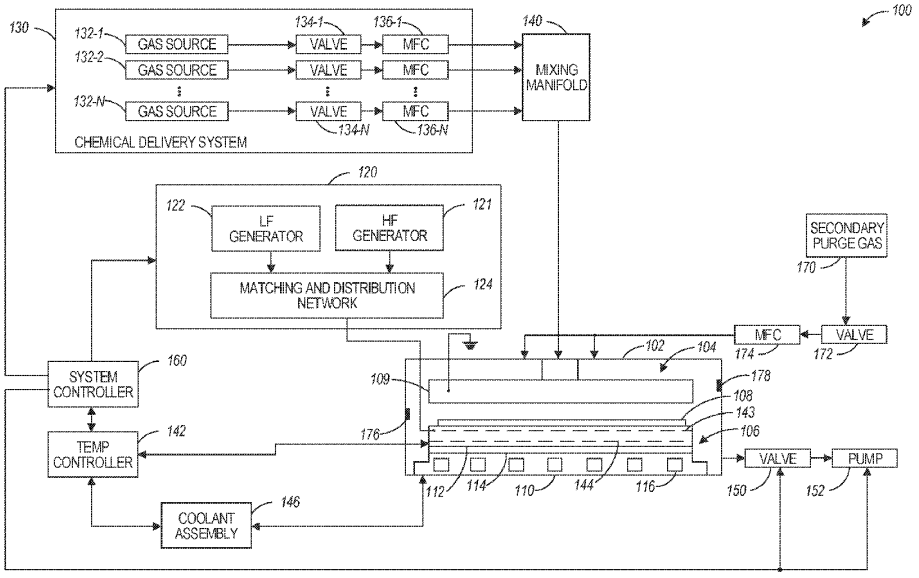


FIG. 1

(57) **Abstract:** A method for removing residue deposits from a reaction chamber includes supplying a cleaning gas into the reaction chamber via direct delivery from a remote plasma source (RPS). The cleaning gas forms a plurality of gas flow streamlines within the reaction chamber. Each of the streamlines originates at an injection point for receiving the cleaning gas and terminates at a chamber pump port coupled to a fore line for evacuating the cleaning gas. A flow characteristic of the cleaning gas is modified to redirect at least a portion of the gas flow streamlines to circulate in proximity to an inner perimeter of the reaction chamber to remove the residue deposits or to enhance the diffusion of cleaning species to surfaces to be cleaned. The inner perimeter is disposed along one or more vertical surfaces of the reaction chamber that are orthogonal to a horizontal surface including the injection point.

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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, 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))*