



- | | |
|--|---|
| (51) International Patent Classification:
<i>H01J 37/32</i> (2006.01) | Christopher Nicholas; 4650 Cushing Pkwy., Fremont, California 94538 (US). |
| (21) International Application Number:
PCT/US2022/077818 | (74) Agent: SCHOLZ, Christian D. et al.; WEAVER AUSTIN VILLENEUVE & SAMPSON LLP, P. O. Box 70250, Oakland, California 94612-0250 (US). |
| (22) International Filing Date:
07 October 2022 (07.10.2022) | (81) Designated States (<i>unless otherwise indicated, for every kind of national protection available</i>): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, 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. |
| (25) Filing Language: English | (84) Designated States (<i>unless otherwise indicated, for every kind of regional protection available</i>): 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, |
| (26) Publication Language: English | |
| (30) Priority Data:
63/262,444 12 October 2021 (12.10.2021) US | |
| (71) Applicant: LAM RESEARCH CORPORATION [US/US]; 4650 Cushing Pkwy., Fremont, California 94538 (US). | |
| (72) Inventors: STRENG, Bradley Taylor; 4650 Cushing Pkwy., Fremont, California 94538 (US). DURBIN, Aaron; 4650 Cushing Pkwy., Fremont, California 94538 (US). MILLER, Aaron Blake; 4650 Cushing Pkwy., Fremont, California 94538 (US). BATZER, Rachel E.; 4650 Cushing Pkwy., Fremont, California 94538 (US). IADANZA, | |

- (54) Title: APPARATUSES AND SYSTEMS FOR AMMONIA/CHLORINE CHEMISTRY SEMICONDUCTOR PROCESSING

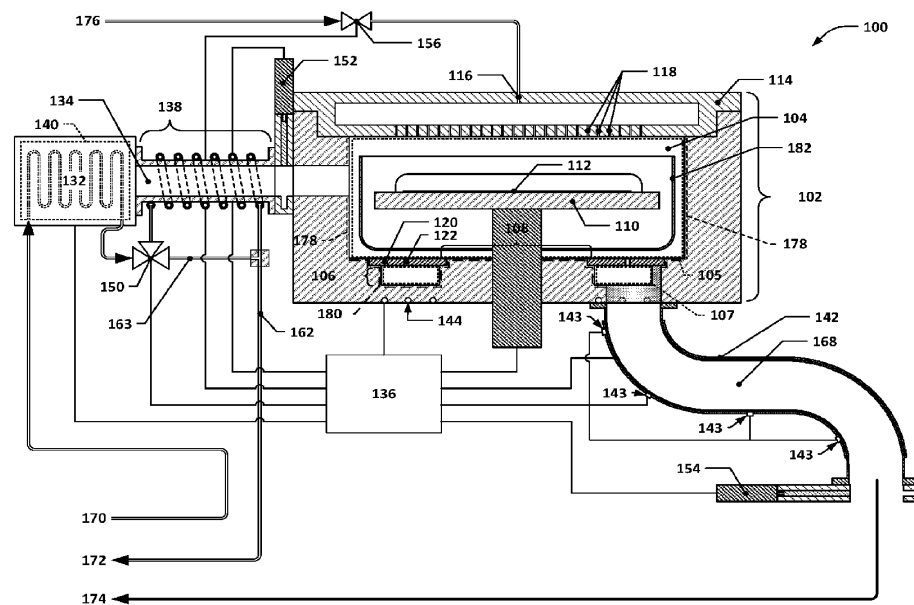


FIG. 1

- (57) Abstract:** Disclosed herein are systems and apparatuses for facilitating semiconductor processing operations involving the use of chlorine-containing and ammonia-containing gases. The systems and apparatuses discussed herein may provide enhanced wafer uniformity and/or may reduce the potential for undesirable, and potentially hazardous, reaction byproduct build-up in such systems.

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, ME, 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))