



- (51) International Patent Classification:
B08B 5/02 (2006.01)
- (21) International Application Number:
PCT/US2012/042158
- (22) International Filing Date:
13 June 2012 (13.06.2012)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
61/498,210 17 June 2011 (17.06.2011) US
13/220,890 30 August 2011 (30.08.2011) US
- (71) Applicant (for all designated States except US): **LAM RESEARCH CORPORATION** [US/US]; 4650 Cushing Parkway, Fremont, CA 94538 (US).
- (72) Inventors; and
(75) Inventors/Applicants (for US only): **TASKAR, Mark** [US/US]; 4650 Cushing Parkway, Fremont, CA 94538-6470 (US). **SHAREEF, Iqbal** [US/US]; 4650 Cushing Parkway, Fremont, CA 94538-6470 (US).
- (74) Agent: **PENILLA, Albert, S.**; Martine Penilla Group, LLP, 710 Lakeway Drive, Suite 200, Sunnyvale, CA 94085 (US).
- (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, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR DECREASING SCRUBBER EXHAUST FROM GAS DELIVERY PANELS

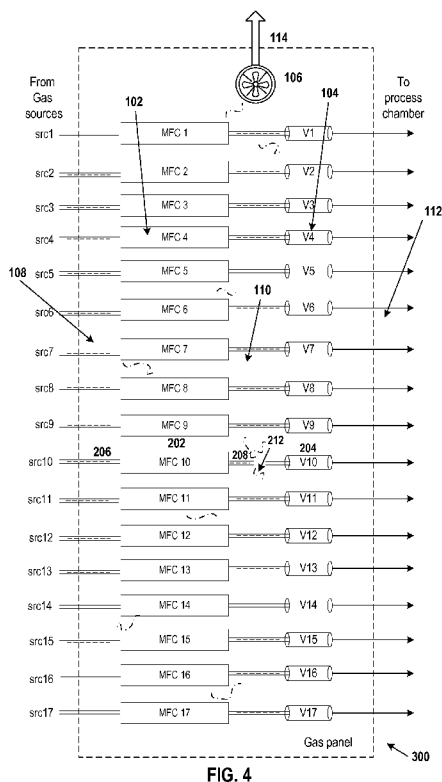


FIG. 4

(57) Abstract: A method and apparatus is provided for decreasing the scrubber exhaust from gas panels, lower the cost of operation, lower the facilitation cost and power consumption by increasing the air velocity in areas of high potential risk of ignition. The apparatus includes a supply of compressed dry air (CDA) through the tubing with individual dispersion nozzles. The CDA dispersion nozzles can be installed at various key locations in order to provide additional ventilation turbulence and reduce potential dead zones inside the gas panel. Aspects of the invention help to save the energy and protect the environment by reducing the power consumption. In addition human safety shall be improved by minimizing the potential risk of ignition.



(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, 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, ML, MR, NE, SN, TD, TG).

Published:

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