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| <b>(51) International Patent Classification:</b><br><i>B01D 53/78</i> (2006.01)<br><i>B01D 53/14</i> (2006.01)<br><i>B01D 53/60</i> (2006.01)<br><i>B01D 53/62</i> (2006.01)<br><i>B01D 53/86</i> (2006.01)<br><i>B01J 19/28</i> (2006.01) | <i>B63H 21/38</i> (2006.01)<br><i>C01B 21/20</i> (2006.01)<br><i>F23J 15/00</i> (2006.01)<br><i>F23J 15/06</i> (2006.01)<br><i>B01D 53/18</i> (2006.01) | <b>(72) Inventors:</b> <b>PLAZA CUELLAR, Jorge Mario</b> ; 87 Finn Corner Way, The Woodlands, Texas 77389 (US). <b>DWYER, Chase</b> ; 658 Navy Street, Santa Monica, California 90405 (US). <b>ZHOU, Shaojun James</b> ; 109 Forest Brook Drive, Cary, North Carolina 27519 (US). <b>RABINDRAN, Aravind Villava Rayer</b> ; 1012 Signal Creek Lane, Morrisville, North Carolina 27560 (US).                                                                                                                                                                               |
| <b>(21) International Application Number:</b><br>PCT/US2024/034167                                                                                                                                                                         |                                                                                                                                                         | <b>(74) Agent:</b> <b>YERGLER, Kary</b> et al.; P.O. Box 1022, Minneapolis, Minnesota 55440 (US).                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>(22) International Filing Date:</b><br>14 June 2024 (14.06.2024)                                                                                                                                                                        |                                                                                                                                                         | <b>(81) Designated States</b> ( <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, MU, 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, |
| <b>(25) Filing Language:</b><br>English                                                                                                                                                                                                    |                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>(26) Publication Language:</b><br>English                                                                                                                                                                                               |                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>(30) Priority Data:</b><br>63/508,370 15 June 2023 (15.06.2023) US                                                                                                                                                                      |                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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**(54) Title:** FLUE GAS CONDITIONING

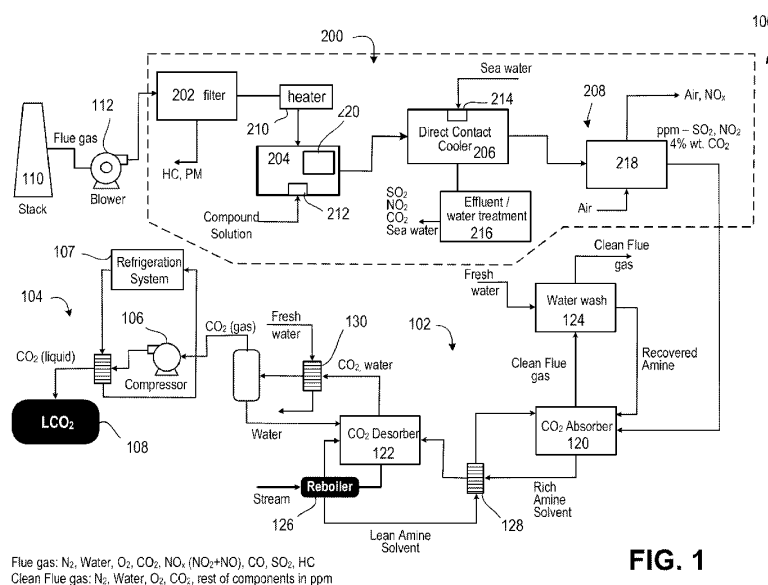


FIG. 1

**(57) Abstract:** A gas conditioning system removes contaminants including carbon dioxide from flue gas, such as flue gas of a marine vessel, and includes a rotating backed bed assembly. The rotating packed bed assembly fluidly connects to an exhaust port of an engine, and receive a flue gas from the exhaust port. The rotating packed bed assembly includes a first rotating packed bed having an absorption agent to absorb a portion of the carbon dioxide from the flue gas, and a second rotating packed bed to receive the absorption agent from the first rotating packed bed and desorb at least some of the portion of the carbon dioxide from the absorption agent.

[Continued on next page]

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, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, 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).

**Declarations under Rule 4.17:**

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

**Published:**

— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*