



(51) International Patent Classification:  
*E02B 15/04* (2006.01)

(21) International Application Number:  
PCT/US2011/033783

(22) International Filing Date:  
25 April 2011 (25.04.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
12/853,681 10 August 2010 (10.08.2010) US

(71) Applicant (for all designated States except US): **AIR PRODUCTS AND CHEMICALS, INC.** [US/US]; 7201 Hamilton Boulevard, Allentown, PA 18195 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ASHLINE, Paul M.** [US/US]; Air Products and Chemicals, Inc., 7201 Hamilton Boulevard, Allentown, PA 18195 (US). **YING, David Hon Sing** [US/US]; Air Products and Chemicals, Inc., 7201 Hamilton Boulevard, Allentown, PA 18195 (US). **GORUNEY, Tunc** [TR/US]; Air Products and Chemicals, Inc., 7201 Hamilton Boulevard, Allentown, PA 18195 (US). **LI, Xianming Jimmy** [US/US]; Air Products and Chemicals, Inc., 7201 Hamilton Boulevard, Allentown, PA 18195 (US). **JOHNSON, Leighta Maureen** [US/US]; Air Products and Chemicals, Inc., 7201 Hamilton Boulevard, Allentown, PA 18195 (US).

(74) Agent: **NEAGLE, Damon, A.**; Design IP, P.C., 5100 W. Tilghman Street, Suite 205, Allentown, PA 18104 (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, LK, 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, RO, RS, RU, 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.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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).

**Declarations under Rule 4.17:**

— of inventorship (Rule 4.17(iv))

**Published:**

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

— with amended claims and statement (Art. 19(1))

(54) Title: COMBUSTION OF OIL FLOATING ON WATER

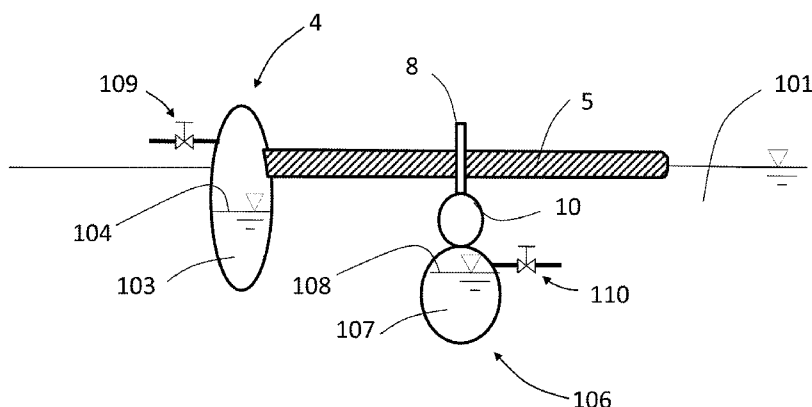


FIG. 2

(57) Abstract: A method for combusting oil from an oil - containing layer (5) floating on water as from an oil spill or well leak. In the method, an oxygen - containing gas is passed through a conduit (10), the oxygen - containing gas from the conduit is introduced proximate the oil- containing layer floating on water, and oil from the oil - containing layer is combusted with the oxygen - containing gas in the presence of a flame. The oxygen - containing gas is introduced with an oxygen molar flow rate sufficient to decrease the opacity of a smoke plume from the combusting oil.