

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
25 July 2019 (25.07.2019)



(10) International Publication Number
WO 2019/143732 A1

(51) International Patent Classification:
C10G 3/00 (2006.01) C10L 1/19 (2006.01)
C10L 1/08 (2006.01)

(21) International Application Number:
PCT/US2019/013864

(22) International Filing Date:
16 January 2019 (16.01.2019)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/618,454 17 January 2018 (17.01.2018) US

(71) Applicant: **REG SYNTHETIC FUELS, LLC** [US/US];
416 South Bell Avenue, Ames, Iowa 50010 (US).

(72) Inventors: **SLADE, David**; 412 26th St., Ames, Iowa
50010 (US). **ABHARI, Ramin**; 11229 S. 67th East Ct.,
Bixby, Oklahoma 74008 (US). **HAVERLY, Martin**; 2304
Lakeview Dr., Ames, Iowa 50010 (US). **BOWEN, Eric**; 39
Cornell Ave., Larkspur, California 94939 (US).

(74) Agent: **MEARA, Joseph P.** et al.; Foley & Lardner LLP,
3000 K Street N.W., Suite 600, Washington, District of Co-
lumbia 20007 (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, 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, 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, SA,
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, 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,

(54) Title: BLENDED FUEL COMPOSITIONS WITH IMPROVED EMISSIONS PROFILES

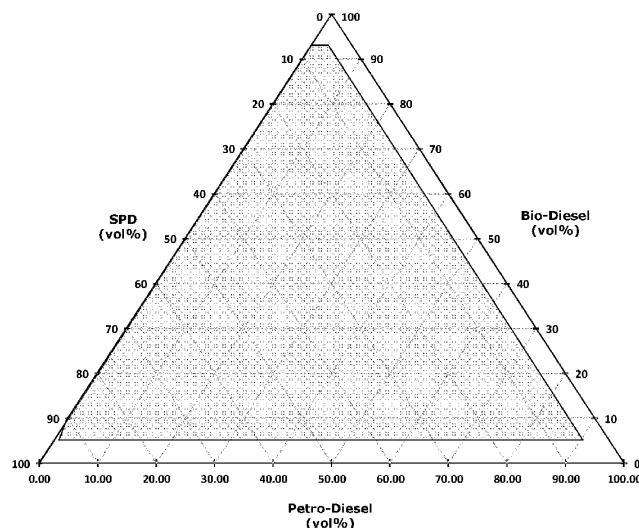


FIG. 1

(57) Abstract: The present technology provides blended fuel compositions and methods of generating such compositions that exhibit surprising and unexpected emissions profiles, while avoiding field performance issues, where the blended fuel composition includes about 5 vol.% to about 95 vol.% of synthetic paraffinic diesel; about 5 vol.% to about 95 vol.% of a biodiesel; and about 0 vol.% to about 90 vol.% of a petroleum diesel, provided that at least about 8 vol.% biodiesel is included when the blended fuel composition does not include petroleum diesel.

[Continued on next page]

WO 2019/143732 A1

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:

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