

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
04 October 2018 (04.10.2018)



(10) International Publication Number
WO 2018/182862 A1

(51) International Patent Classification:
F17C 13/08 (2006.01) *F17C 9/02* (2006.01)
F17C 6/00 (2006.01)

(21) International Application Number:
PCT/US2018/017992

(22) International Filing Date:
13 February 2018 (13.02.2018)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/478,961 30 March 2017 (30.03.2017) US

(71) Applicant (for all designated States except US):
**EXXONMOBIL UPSTREAM RESEARCH COMPAN-
NY** [US/US]; EMURC-intellectual Property Law-LOC
101, 22777 Springwoods Village Parkway, Spring, TX
77389 (US).

(72) Inventors; and

(71) Applicants (for US only): **BALASUBRAMANIAN,
Sathish** [US/US]; 22 N. Beech Springs Circle, The Wood-

lands, TX 77389 (US). **BLACKERT, Austin** [US/US]; 843
E. 28th Street, Houston, TX 77009 (US).

(74) Agent: **JENSEN, Nathan, O.** et al.; ExxonMobil Upstream
Research Company, EMURC-intellectual Property Law-
LOC 101, 22777 Springwoods Village Parkway, Spring,
TX 77389 (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,

(54) Title: SHIP/FLOATING STORAGE UNIT WITH DUAL CRYOGENIC CARGO TANK FOR LNG AND LIQUID NITROGEN

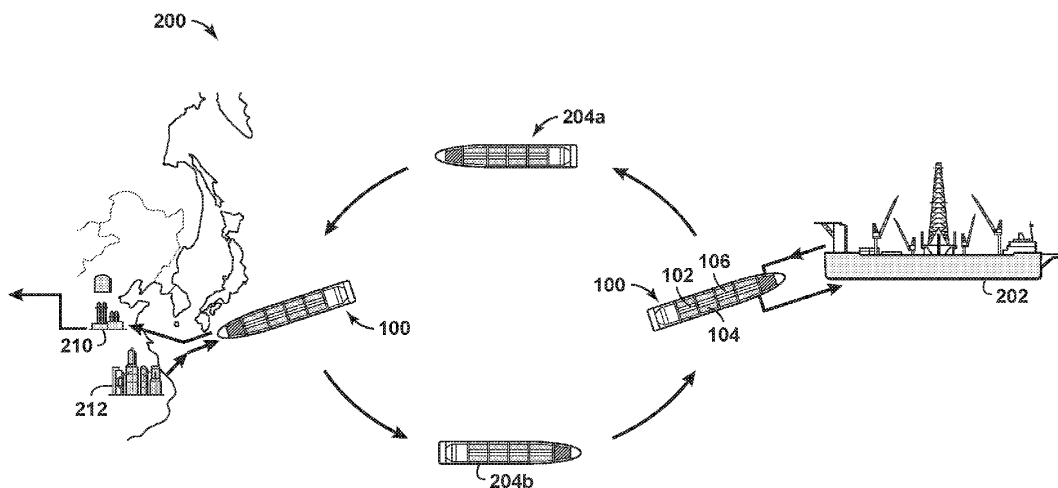


FIG. 2

(57) Abstract: A water-borne carrier for transporting liquefied natural gas (LNG) and liquefied nitrogen (LIN). A plurality of dual-purpose cryogenic storage tanks are arranged along a length of the ship. The plurality of dual-purpose cryogenic storage tanks may contain LNG or LIN. A LNG-only cryogenic storage tank may be arranged along the length of the ship. The LNG-only cryogenic storage tank contains only LNG.

[Continued on next page]

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,
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))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

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