



(51) International Patent Classification:

B01J 19/00 (2006.01) **C10G 2/00** (2006.01)
B01J 8/04 (2006.01) **C10G 45/32** (2006.01)
B01J 4/02 (2006.01) **C10G 45/44** (2006.01)
C07C 7/163 (2006.01)

(21) International Application Number:

PCT/GB2023/050380

(22) International Filing Date:

21 February 2023 (21.02.2023)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2202363.4 22 February 2022 (22.02.2022) GB

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(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, 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, 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, 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).

(54) Title: REACTOR

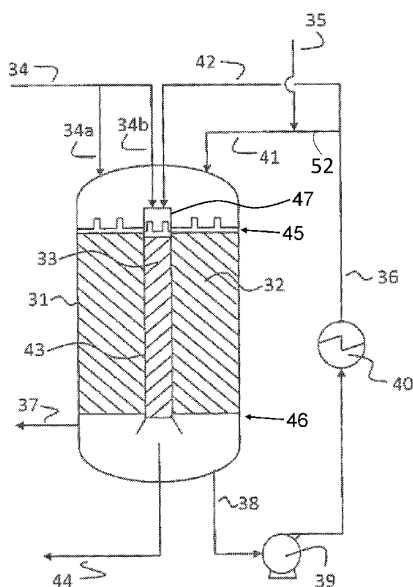


Fig. 3

(57) Abstract: A liquid/gas reactor is disclosed. The reactor comprises: a primary catalyst bed having an inlet end and an outlet end; means for supplying a primary feed stream to the inlet end of the primary catalyst bed, the primary feed stream comprising fresh feed and recycled at least partially converted liquid product; a secondary catalyst bed having an inlet end and an outlet end, the secondary catalyst bed extending substantially vertically through the primary catalyst bed; means for supplying a secondary feed stream to the inlet end of the secondary catalyst bed, the secondary feed stream comprising recycled at least partially converted liquid product; means for collecting at least partially converted liquid product from the outlet end of the primary catalyst bed and recycling at least a portion of the at least partially converted liquid product to the inlet end of the primary catalyst bed and secondary catalyst bed; a separating wall between the primary catalyst bed and secondary catalyst bed; means for supplying a primary gas stream only to the inlet end of the primary catalyst bed; and means for supplying a secondary gas stream only to the inlet end of the secondary catalyst bed. A process for carrying out a gas/liquid reaction using the reactor is also disclosed.

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *of inventorship (Rule 4.17(iv))*

Published:

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