



(51) International Patent Classification:

B01J 29/40 (2006.01) **C07C 1/20** (2006.01)
B01J 29/90 (2006.01) **C10G 3/00** (2006.01)
B01J 31/12 (2006.01)

(21) International Application Number:

PCT/EP2013/063837

(22) International Filing Date:

1 July 2013 (01.07.2013)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/667,628 3 July 2012 (03.07.2012) US

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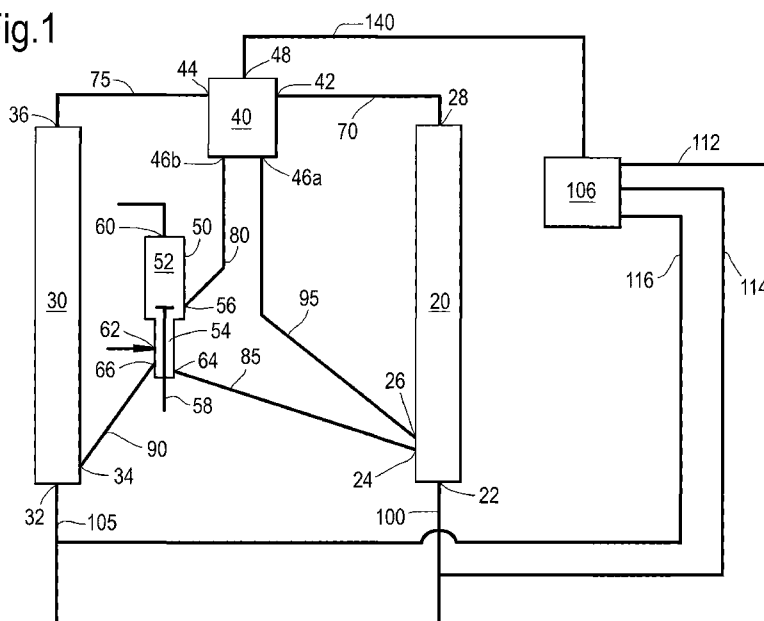
(81) **Designated States (unless otherwise indicated, for every kind of national protection available):** AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, 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, 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, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

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(54) Title: PROCESS FOR PREPARING ETHYLENE AND/OR PROPYLENE

Fig.1



(57) **Abstract:** The present invention provides a process for preparing ethylene and/or propylene, wherein oxygenates and olefins are converted to ethylene and/or propylene over a zeolite-comprising catalyst, comprising the steps of: a) reacting in a first reactor an oxygenate feed over the zeolite-comprising catalyst at a temperature in the range of from 350 to 1000 °C and retrieving from the first reactor a first reactor effluent stream comprising gaseous products, including ethylene and/or propylene, and zeolite-comprising catalyst; b) reacting in a second reactor an olefin feed over the zeolite-comprising catalyst at a temperature in the range of from 500 to 700 °C and retrieving from the second reactor a second reactor effluent stream comprising gaseous products, including ethylene and/or propylene, and zeolite-comprising catalyst; c) providing the first and second reactor effluent stream to one or more gas/solid separators to retrieve zeolite-comprising catalyst from the first and second reactor effluent; d) providing part of the zeolite-comprising catalyst retrieved in step (c) to the first reactor; e) regenerating another

part of the zeolite-comprising catalyst retrieved in step (c) by contacting the zeolite-comprising catalyst with oxygen at elevated temperatures to provide a hot regenerated zeolite-comprising catalyst; and f) providing part of the hot regenerated zeolite-comprising catalyst to the first reactor and another part of the hot regenerated zeolite-comprising catalyst to the second reactor. The invention further provides a system suitable for preparing ethylene and propylene and the use thereof.



Declarations under Rule 4.17:

Published:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))* — *with international search report (Art. 21(3))*