

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
20 May 2010 (20.05.2010)

PCT

(10) International Publication Number
WO 2010/055285 A8

(51) International Patent Classification:

C07C 29/149 (2006.01) C07C 51/12 (2006.01)

C07C 31/04 (2006.01) C07C 53/08 (2006.01)

C07C 31/08 (2006.01)

(21) International Application Number:

PCT/GB2009/002639

(22) International Filing Date:

10 November 2009 (10.11.2009)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

08253723.4 13 November 2008 (13.11.2008) EP

(71) Applicant (for all designated States except US): **BP p.l.c.**
[GB/GB]; 1 St. James's Square, London SW1Y 4PD
(GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **DITZEL, Evert, Jan** [NZ/GB]; 46 Boothgate Drive, Howden, Goole, East Yorkshire DN14 7EW (GB). **GAEMERS, Sander** [NL/GB]; Wood End House, Rise Skirlaugh, East Yorkshire HU11 5BL (GB). **SUNLEY, John, Glenn** [GB/GB]; 7 Hall Walk, Cottingham, East Yorkshire HU16 4RL (GB).(74) Agent: **HILL, Simon, Stephen**; BP International Limited, Global Patents & Technology Law (Central), Chertsey road, Sunbury-on-Thames, Middlesex TW16 7LN (GB).

(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, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (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, 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:

— 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))

(48) Date of publication of this corrected version:

8 July 2010

(15) Information about Correction:

see Notice of 8 July 2010

(54) Title: HYDROGENATION OF ETHANOIC ACID TO PRODUCE ETHANOL

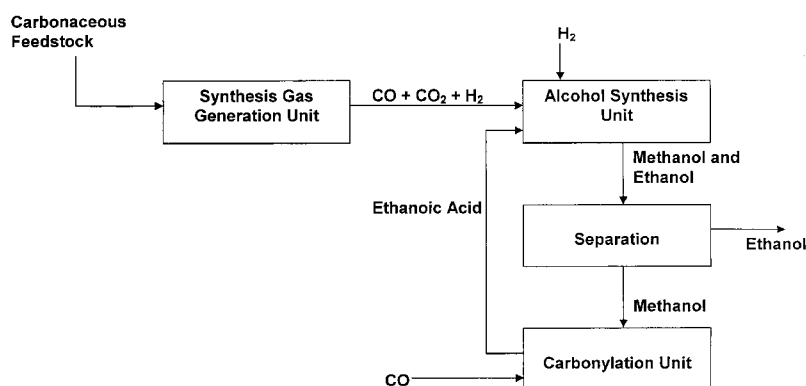


Fig. 1

(57) Abstract: The present invention relates to a process for producing methanol and ethanol, wherein the methanol is produced from synthesis gas and the ethanol is produced via the hydrogenation of an ethanoic acid feed; characterised in that the hydrogenation of the ethanoic acid feed is carried out within the same alcohol synthesis unit and in the presence of the same catalyst(s) that is used to produce the methanol from the synthesis gas and wherein the feed introduced to the alcohol synthesis unit comprises synthesis gas and ethanoic acid.