

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
4 August 2011 (04.08.2011)

(10) International Publication Number
WO 2011/094145 A3

- (51) International Patent Classification:
C10G 1/04 (2006.01) *C08L 95/00* (2006.01)
B01D 11/02 (2006.01)
- (21) International Application Number:
PCT/US2011/022206
- (22) International Filing Date:
24 January 2011 (24.01.2011)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
12/695,885 28 January 2010 (28.01.2010) 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, 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, 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, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:
15 December 2011

(54) Title: METHODS FOR PREPARING SOLID HYDROCARBONS FOR UPGRADING

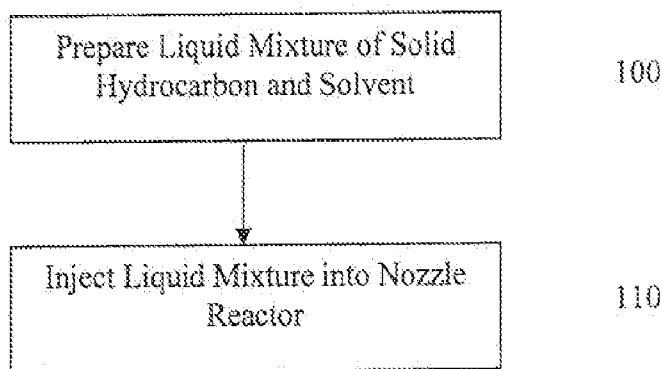


FIGURE 1

(57) Abstract: A method of preparing solid hydrocarbons for cracking. The method includes preparing a mixture including solid hydrocarbon material dissolved in a solvent. After optionally separating non-dissolved solids from the mixture, the mixture is injected into a nozzle reactor for upgrading of the hydrocarbon component of the mixture.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2011/022206**A. CLASSIFICATION OF SUBJECT MATTER***C10G 1/04(2006.01)i, B01D 11/02(2006.01)i*

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C10G, B01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: nozzle, reactor, (asphaltene, bitumen), solvent

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2008-0210602 A1 (DUYVESTSEYN WILLEM P.C.) 04 September 2008 See claims 1-26	1-18
Y	US 2009-0266741 A1 (DUYVESTSEYN WILLEM P.C. et al.) 29 October 2009 See [0026]; figures 1-10; claims 1-26	1-18
PX	US 2010-0264062 A1 (DUYVESTSEYN WILLEM P.C.) 21 October 2010 See claims; figures	1,2,4-16
A	JP 2005-307104 A (IDEMITSU KOSAN CO LTD et al.) 04 November 2005 See claims; [0009]-[0015]	1-18

 Further documents are listed in the continuation of Box C. See patent family annex.

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"&" document member of the same patent family

Date of the actual completion of the international search

20 OCTOBER 2011 (20.10.2011)

Date of mailing of the international search report

20 OCTOBER 2011 (20.10.2011)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
Government Complex-Daejeon, 189 Cheongsa-ro,
Seo-gu, Daejeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

BYUN, Sang Hyun

Telephone No. 82-42-481-5618



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2011/022206

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