



(51) International Patent Classification:

C07C 4/06 (2006.01) **B01J 29/86** (2006.01)
C07C 9/00 (2006.01) **C01B 39/48** (2006.01)

(21) International Application Number:

PCT/US2010/053739

(22) International Filing Date:

22 October 2010 (22.10.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

12/612,820 5 November 2009 (05.11.2009) US

(71) Applicant (for all designated States except US):
CHEVRON U.S.A. INC. [US/US]; 6001 Bollinger
Canyon Road, San Ramon, California 94583 (US).

(72) Inventor; and

(71) Applicant : **BURTON, Allen W.** [US/US]; 91 Bayside
Court, Richmond, California 94804 (US).

(74) Agents: **ROSS, Michael D.** et al.; Chevron Corporation,
Law Department, Post Office Box 6006, San Ramon, Cal-
ifornia 94583-0806 (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, 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).

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))

[Continued on next page]

(54) Title: N-PARAFFIN SELECTIVE HYDROCONVERSION PROCESS USING BOROSILICATE ZSM-48 MOLECULAR SIEVES

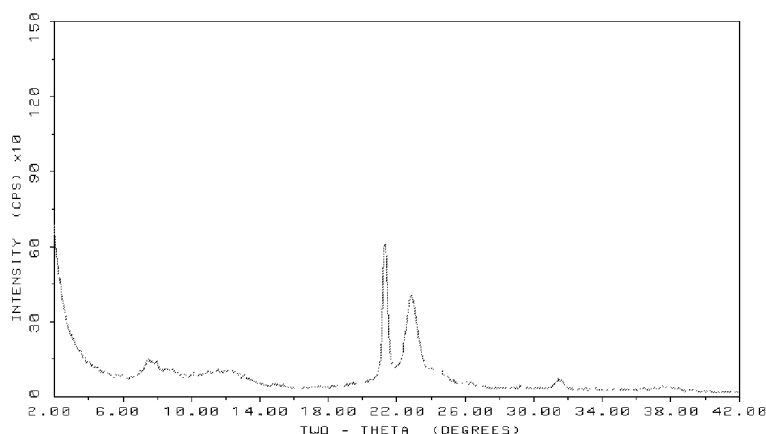


FIG. 1

(57) Abstract: The present invention is directed to processes using a borosili-
cate ZSM-48 as a catalyst for the selec-
tive hydroconversion of heavy normal
paraffins into lighter normal paraffin
products, with minimal formation of
isoparaffins. The borosilicate ZSM-48
molecular sieve has a mole ratio of be-
tween 40 and 400 of silicon oxide to
boron oxide, synthesized using novel
structure directing agents.



Published:

- *without international search report and to be republished
upon receipt of that report (Rule 48.2(g))*