

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
14 December 2000 (14.12.2000)

PCT

(10) International Publication Number
WO 00/75072 A1

(51) International Patent Classification: C01B 37/00,
39/02, B01J 29/04, C07C 1/00

(21) International Application Number: PCT/US00/15453

(22) International Filing Date: 5 June 2000 (05.06.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/137,997 7 June 1999 (07.06.1999) US

(71) Applicant: EXXON CHEMICAL PATENTS INC.
[US/US]; 5200 Bayway Drive, Baytown, TX 77520 (US).

(72) Inventors: FUNG, Shun, C.; 855 Papen Road, Bridge-
water, NJ 08807 (US). JANSSEN, Marcel, J., G.;
Domeinstraat 84, B-3010 Kessel Lo (BE). VAUGHN,
Stephen, N.; 1111 Southern Hills, Kingwood, TX 77339
(US). MERTENS, Machteld, M.; Beringstraat 72,
B-3190 Boortmeerbeek (BE). SCHWEIZER, Albert, E.;

2069 W. Magna Carta, Baton Rouge, LA 70815 (US).
MARTENS, Luc, R., M.; Prinsenbeemdlaan 3, B-1860
Meise (BE). HALL, Richard, B.; 40 Holland Brook Road,
Whitehouse Station, NJ 08889 (US). MORTIER, Wil-
fried, J.; Diestse Steenweg 483, B-3010 Kessel Lo (BE).
SEARLE, Ronald, G.; 3827 Arnold Street, Houston, TX
77005 (US). XIONG, Yi-Gang; 4123 North Pine Brook
Way, Houston, TX 77059 (US).

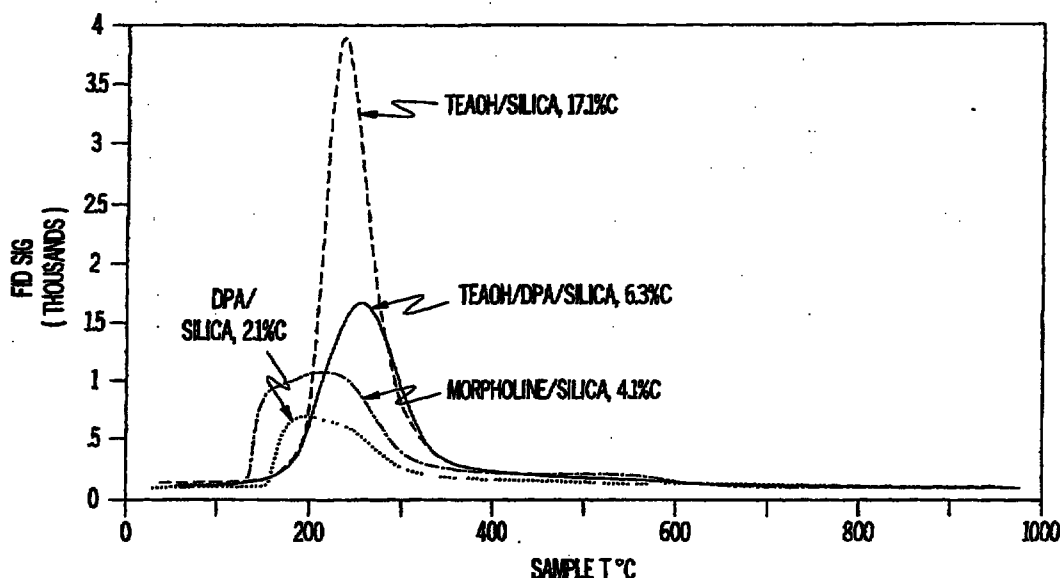
(74) Agents: KELLER, Bradley, A. et al.; ExxonMobil Chem-
ical Company, P.O. Box 2149, Baytown, TX 77522-2149
(US).

(81) Designated States (*national*): AE, AL, AM, AT, AU, AZ,
BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE,
ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD,
SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN,
YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian

[Continued on next page]

(54) Title: HEAT TREATING A MOLECULAR SIEVE AND CATALYST



(57) Abstract: Disclosed is a method of heat treating a molecular sieve. The method comprises providing a template-containing molecular sieve, heating the molecular sieve under conditions effective to remove a portion of the template from the molecular sieve, and cooling the heated molecular sieve to leave an amount of template effective to cover catalytic sites within the molecular sieve. A catalyst composition is also provided which comprises a molecular sieve having a microporous structure and a binder, wherein between 10 and 90 vol% of the microporous structure is occupied by a material, the material comprising a template or a carbonaceous residue of a template, and the catalyst composition exhibits a Davison Index of not greater than 30.



WO 00/75072 A1



patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *With international search report.*