

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
6 September 2002 (06.09.2002)

PCT

(10) International Publication Number
WO 02/068401 A1

(51) International Patent Classification⁷: **C07D 301/04**,
B01J 29/22, C01B 37/00

(21) International Application Number: PCT/US01/51329

(22) International Filing Date:
13 November 2001 (13.11.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/731,565 7 December 2000 (07.12.2000) US

(71) Applicant: **ARCO CHEMICAL TECHNOLOGY, L.P.**
[US/US]; Two Greenville Crossing, 4001 Kennett Pike,
Suite 238, Greenville, DE 19807 (US).

(72) Inventors: **COOKER, Bernard**; 108 Grubb Road,
Malvern, PA 19382 (US). **JEWSON, Jennifer, D.**; 42
Jonica Drive, Boyertown, PA 19512 (US). **ONIMUS,**
Wilson, H.; 154 Maple Avenue, Holmes, PA 19043 (US).

(74) Agents: **CARROLL, Kevin, M.** et al.; Lyondell Chemical
Company, 3801 West Chester Pike, Newtown Square, PA
19073 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, 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, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI,
SK, SL, TJ, TM, TR, TT, TZ, 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
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, TR), OAPI patent (BF, BJ, CF,
CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

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

(54) Title: EPOXIDATION CATALYST AND PROCESS FOR THE PRODUCTION THEREOF

(57) Abstract: The stability of a noble metal/titanium zeolite catalyst is improved by elevated temperature calcination with an oxy-
gen containing gas; the catalyst is useful in epoxidation involving the reaction of olefin, oxygen and hydrogen.



WO 02/068401 A1