

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
4 April 2002 (04.04.2002)

PCT

(10) International Publication Number
WO 02/26675 A1

(51) International Patent Classification⁷: **C07C 29/10**

(21) International Application Number: PCT/EP01/11306

(22) International Filing Date:
28 September 2001 (28.09.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
00203387.6 28 September 2000 (28.09.2000) EP

(71) Applicant: **SHELL INTERNATIONAL RESEARCH
MAATSCHAPPIJ B.V.** [NL/NL]; Carel van Bylandtlaan
30, NL-2596 HR The Hague (NL).

(72) Inventors: **DERKS, Willem**; Badhuisweg 3, NL-1031
CM Amsterdam (NL). **VAN KRUCHTEN, Eugene,
Maria, Godfried, Andre**; Badhuisweg 3, NL-1031 CM
Amsterdam (NL).

(74) Agent: **SHELL INTERNATIONAL B.V.**; Intellectual
Property Services, P.O. Box 384, NL-2501 CJ The Hague
(NL).

(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: CATALYTIC PROCESS FOR PRODUCING AN ALKYLENE GLYCOL WITH REACTOR-OUTPUT RECYCLE

(57) Abstract: A process for the production of an alkylene glycol wherein: a feed mixture containing a respective alkylene oxide and water is introduced to at least one inlet of a reactor containing a fixed bed of a solid catalyst based on an anion exchange resin, and a reactor output mixture containing an alkylene glycol and unreacted feed mixture is removed from at least one outlet of the reactor, characterised in that at least a part of the reactor output mixture is recycled to at least one inlet of the same reactor.

WO 02/26675 A1