

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
5 June 2003 (05.06.2003)

PCT

(10) International Publication Number
WO 03/045885 A1

(51) International Patent Classification⁷: **C07C 39/17**,
37/14, 37/18, 37/11, 37/16

SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ,
VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number: PCT/US02/37305

(22) International Filing Date:
20 November 2002 (20.11.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/994,099 26 November 2001 (26.11.2001) US

(71) Applicant: **E.I. DU PONT DE NEMOURS AND COM-
PANY** [US/US]; 1007 Market Street, Wilmington, DE
19898 (US).

(72) Inventors: **LU, Helen, S.M.**; 209 Knoll Road, Walling-
ford, PA 19086 (US). **QIU, Weiming**; 303 Charleston
Drive, Wilmington, DE 19808 (US). **SHAPIRO, Rafael**;
1415 Fresno Road, Wilmington, DE 19803 (US).

(74) Agent: **DEITCH, Gerald, E.**; E.I. du Pont de Nemours
and Company, Legal Patent Records Center, 4417 Lan-
caster Pike, Wilmington, DE 19805 (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, OM, PH, PL, PT, RO, RU, SC, SD, SE,

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK,
TR), OAPI patent (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)) for the following designations 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, OM, PH, PL, PT,
RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT,
TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent
(GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR),
OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
ML, MR, NE, SN, TD, TG)
- as to the applicant's entitlement to claim the priority of the
earlier application (Rule 4.17(iii)) for all designations

Published:

- with international search report

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: 3-ALKYLATED-5,5',6,6',7,7',8,8'-OCTAHYDRO-2,2'-BINAPHTHOLS AND 3,3'-DIALKYLATED-
5,5',6,6',7,7',8,8'-OCTAHYDRO-2,2'-BINAPHTHOLS AND PROCESSES FOR MAKING THEM

(57) Abstract: The compositions 3-alkylated-5,5',6,6',7,7',8,8'-octahydro-2,2'-binaphthol and 3,3'-dialkylated-5,5',6,6',7,7',8,8'-
octahydro-2,2'-binaphthol are disclosed, as well as various processes for making them, all involving the alkylation of
5,5',6,6',7,7',8,8'-octahydro-2,2'-binaphthol.



WO 03/045885 A1