

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
15 January 2004 (15.01.2004)

PCT

(10) International Publication Number  
**WO 2004/006355 A3**

(51) International Patent Classification<sup>7</sup>: **H01L 51/00**,  
51/30, C07D 471/14, 241/46, 241/44, 241/42, 401/14,  
C07F 7/08, 15/00, C07D 519/00, 409/14

(74) Agent: **CAPRIA, Mary, Ann**; E.I. DU PONT DE  
NEMOURS AND COMPANY, LEGAL PATENT  
RECORDS CENTER, 4417 Lancaster Pike, Wilmington,  
DE 19805 (US).

(21) International Application Number:  
PCT/US2003/021618

(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, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,  
SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,  
UG, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 9 July 2003 (09.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/394,767 10 July 2002 (10.07.2002) US  
60/458,277 28 March 2003 (28.03.2003) US

(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, HU, IE, IT, LU, MC, NL, PT, RO,  
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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

**Published:**

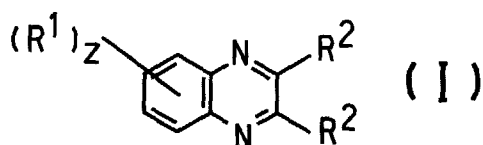
- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

(72) Inventors: **LECLOUX, Daniel, David**; 555 Meadow  
View Drive, Buellton, CA 93427 (US). **GUIDRY, Mark,  
A.**; 131 Somers Avenue, New Castle, DE 19720 (US).  
**HERRON, Norman**; 408 Apple Road, Newark, DE  
19711 (US). **RADU, Nora, S.**; 109 Stoney Ridge Road,  
Landenberg, PA 19350 (US). **SMITH, Eric, Maurice**;  
103 West Sutton Place, Wilmington, DE 19810 (US).  
**WANG, Ying**; 4010 Greenmount Road, Wilmington, DE  
19810 (US).

(88) Date of publication of the international search report:  
18 March 2004

*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: CHARGE TRANSPORT COMPOSITIONS WHICH ARE QUINAZOLINE DERIVATIVES AND ELECTRONIC DE-  
VICES MADE WITH SUCH COMPOSITIONS



(57) Abstract: The present invention relates to charge transport composi-  
tions containing a quinazoline derivative of formula I, II or III. The inven-  
tion further relates to electronic devices in which there is at least one active  
layer comprising such charge transport compositions.

WO 2004/006355 A3