

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
13 February 2003 (13.02.2003)

PCT

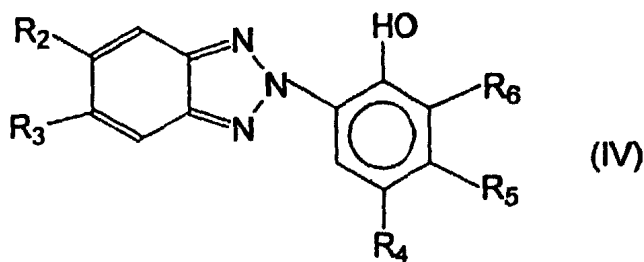
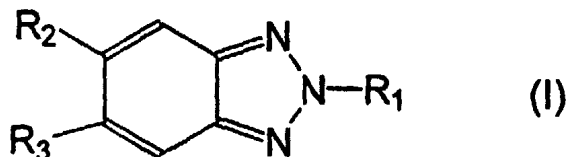
(10) International Publication Number
WO 2003/011983 A3

- (51) International Patent Classification:
C09D 11/02 (2006.01) F21V 9/06 (2006.01)
- (21) International Application Number:
PCT/US2001/024069
- (22) International Filing Date: 1 August 2001 (01.08.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (71) Applicant: LEXMARK INTERNATIONAL, INC.
[US/US]; Intellectual Property Law Dept., 740 West New
Circle Road, Lexington, KY 40550 (US).
- (72) Inventors: HOLLOWAY, Ann, P.; 1136 Chetford Drive,
Lexington, KY 40509 (US). FEEMAN, James, E.; 2000
Cambridge Avenue #353, Wyomising, PA 19610 (US).
- (74) Agent: DASPIT, Jacqueline, M.; Lexmark International,
Inc., Intellectual Property Law Department, 740 West New
Circle Road, Lexington, KY 40550 (US).

- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, 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, NO, NZ, 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
— with information concerning one or more priority claims considered void
- (88) Date of publication of the international search report:
11 June 2009

(54) Title: INK COMPOSITIONS CONTAINING ULTRAVIOLET ABSORBERS



(57) Abstract: Ink compositions containing ultraviolet absorbing compounds of formula I, wherein R₁, R₂, and R₃ are defined herein, and wherein the compound contains one or two -SO₃M groups, one -SO₃M and one -CO₂M group, or two -CO₂M groups. Ink jet ink compositions containing ultraviolet absorbing compounds of formula IV, wherein R₂, R₃, R₄, R₅ and R₆ are defined herein, and wherein the compound contains one or two -SO₃M groups, one -SO₃M and one -CO₂M group or two -CO₂M groups, with the provision that either (1) R₂ and R₃ are not both hydrogen, or (2) R₅ is not hydrogen. The ink compositions are adapted for ink jet printing.

WO 2003/011983 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/24069

A. CLASSIFICATION OF SUBJECT MATTER
 IPC: C09D 11/02(2006.01);F21V 9/06(2006.01)

USPC: 106/31.49,31.78;252/589
 According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 106/31.49, 31.78; 252/589

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)


C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4,041,044 A (WHITE) 09 August 1977 (09.08.1977), column 1, lines 35-38, column 3, lines 14-42 and column 12, lines 64-67.	24-26
Y	US 5,124,723 A (LAVER) 23 June 1992 (23.06.1992), column 1, line 39-column 2, line 37 and column 9, line 49-column 10, line 22.	24-26
A	US 5,498,345 A (JOLLENBECK et al) 12 March 1996 (12.03.1996).	1-23

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"X" document of <i>partial</i> relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 12 June 2008 (12.06.2008)	Date of mailing of the international search report 25 JUN 2008
--	--

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner of Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer Helene Klemanski Telephone No. (571) 272-1700 
--	---