(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 24 April 2008 (24.04.2008)

(10) International Publication Number WO 2008/049072 A3

- (51) International Patent Classification: F21V 9/14 (2006.01)
- (21) International Application Number:

PCT/US2007/081820

- (22) International Filing Date: 18 October 2007 (18.10.2007)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:

60/829,971 18 October 2006 (18.10.2006)

- (71) Applicant (for all designated States except US): REAL D [US/US]; 100 North Crescent Drive, Suite 120, Beverly Hills, CA 90210 (US).
- (72) Inventors: and
- (75) Inventors/Applicants (for US only): ROBINSON. Michael, G. [GB/US]; 100 North Crescent Drive, Suite 120, Beverly Hills, CA 90210 (US). SHARP, Gary, D. [US/US]; 100 North Crescent Drive, Suite 120, Beverly Hills, CA 90210 (US). SCHUCK, Miller, H. [US/GB]; 100 North Crescent Drive, Suite 120, Beverly Hills, CA 90210 (US).
- (74) Agents: MOTHEW, Neil G. et al.: Baker & Mckenzie Llp. 2001 Ross Avenue, Suite 2300, Dallas, TX 75201 (US).

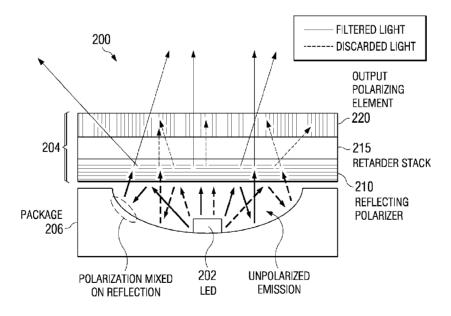
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH. GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (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))

[Continued on next page]

(54) Title: LED ILLUMINATOR FILTERS



(57) Abstract: Described are methods, systems and apparatuses that provide light sources to illuminate an LCD panel for a visual display. A light source includes a light emitting diode (LED) and a spectral filter. The spectral filter is operable to transmit a first set of spectral bands and block a second set of spectral bands from the LED. The spectral filter may be based on retarder stack technology or dichroic filter technology. Polarization and light recirculation techniques are disclosed and implementations into display systems described. These approaches are deemed useful for LED illuminated direct view color encoded stereoscopic systems based on LCD technology.



- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

 10 July 2008
- of inventorship (Rule 4.17(iv))

Published:

— with international search report

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 07/81820

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - F21V 9/14 (2008.01) USPC - 362/19 According to International Patent Classification (IPC) or to both national classification and IPC			
Minimum documentation searched (classification system followed by classification symbols) USPC: 362/19			
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC: 362/19, 612; 359/246, 283, 362 (text searched)			
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PubWEST(USPT,PGPB,EPAB,JPAB); Google Scholar Search Terms - retarder, LED, polarizing, spectral, liquid crystal switch			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where ap	ppropriate, of the relevant passages	Relevant to claim No.
Υ	US 6,452,646 B1 (SHARP et al.) 17 September 2002 (col. 1, ln. 29-31; col. 5, ln. 60-62; and col. 5, ln. 45-47 a		1-25
Y	US 2005/0265035 A1 (BRASS et al.) 01 December 2005 (01.12.2005), entire document, especially para. [0162] and [0109]		1-25
A	US 2006/0203352 A1 (PASHLEY) 14 September 2006 (14.09.2006), entire document, especially Abstract		1-25
I			
. '		· ,	
:			
			,
Further documents are listed in the continuation of Box C.			
 Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand 			
"E" earlier a	to be of particular relevance the principle or theory underlying the invention "E" earlier application or patent but published on or after the international filing date "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive		
"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	special reason (as specified) considered to involve an inventive step when the document is combined with one or more other such documents, such combination		
"P" docume	· · · · · · · · · · · · · · · · · · ·		
Date of the actual completion of the international search Date of mailing of the international search report			
07 March 2008 (07.03.2008)		25 APR 2008	
Name and mailing address of the ISA/US Authorized officer:			
	T, Attn: ISA/US, Commissioner for Patents 0, Alexandria, Virginia 22313-1450	Lee W. Young	
Facsimile No. 571-273-3201 PCT OSP: 571-272-7774			

Form PCT/ISA/210 (second sheet) (April 2007)