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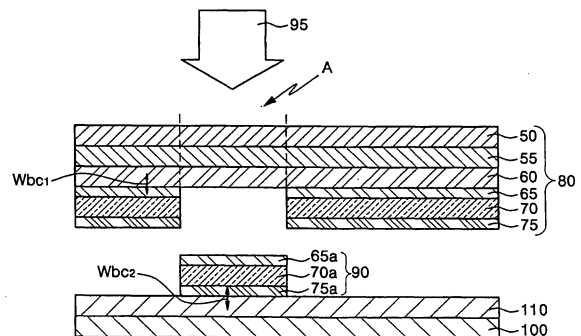
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(54) **Donor substrate for a flat panel display and method of fabricating an organic light emitting diode (OLED) display using the same**

(57) A donor substrate for a flat panel display comprises a base film, a light-to-heat conversion layer on the base film, a first buffer layer on the light-to-heat conversion layer, the first buffer layer including an emission host material, a transfer layer on the first buffer layer, and a second buffer layer on the transfer layer, the second buffer layer including an emission host material that is substantially similar to that of the first buffer layer.

FIG. 2





EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	US 2005/048295 A1 (KIM MU-HYUN [KR] ET AL) 3 March 2005 (2005-03-03) * paragraph [0024] - paragraph [0042]; figures 2-3 *	1-15	INV. H01L51/00 ADD. H01L27/32
Y	US 6 140 009 A (WOLK MARTIN B [US] ET AL) 31 October 2000 (2000-10-31) * column 12, line 54 - column 14, line 35; figures 1-3 * * column 13, line 54 - line 57 *	1-15	
A	WO 02/22374 A1 (3M INNOVATIVE PROPERTIES CO [US]) 21 March 2002 (2002-03-21) * page 4, line 20 - page 20, line 16; figure 1 *	9	
A	US 2006/068520 A1 (SONG MYUNG-WON [KR] ET AL) 30 March 2006 (2006-03-30) * paragraph [0024] - paragraph [0046]; figure 1 *	1	
A	US 2006/088698 A1 (MAJUMDAR DEBASIS [US] ET AL) 27 April 2006 (2006-04-27) * paragraph [0095] - paragraph [0098]; figure 1 *	1	TECHNICAL FIELDS SEARCHED (IPC) H01L
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 6 May 2011	Examiner Bernabé Prieto, A
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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Patent document cited in search report		Publication date	Patent family member(s)	Publication date			
US 2005048295	A1	03-03-2005	CN 1592524 A	09-03-2005			
			JP 2005079087 A	24-03-2005			
			KR 20050023001 A	09-03-2005			

US 6140009	A	31-10-2000	AU 2723700 A	01-08-2000			
			AU 4199799 A	01-08-2000			
			CN 1337905 A	27-02-2002			
			DE 69903978 D1	19-12-2002			
			DE 69903978 T2	17-07-2003			
			EP 1144198 A1	17-10-2001			
			JP 2002534782 T	15-10-2002			
			WO 0041892 A1	20-07-2000			
			US 6114088 A	05-09-2000			
			US 6194119 B1	27-02-2001			
			US 6270944 B1	07-08-2001			
			US 6214520 B1	10-04-2001			
			US 6221553 B1	24-04-2001			

WO 0222374	A1	21-03-2002	AT 291533 T	15-04-2005			
			AU 3101301 A	26-03-2002			
			CN 1469814 A	21-01-2004			
			DE 60109627 D1	28-04-2005			
			DE 60109627 T2	16-02-2006			
			EP 1318918 A1	18-06-2003			
			HK 1057731 A1	13-01-2006			
			JP 2004510289 T	02-04-2004			
			MX PA03002142 A	04-05-2004			
			TW I246354 B	21-12-2005			
			US 6855384 B1	15-02-2005			

			US 2006068520	A1	30-03-2006	CN 1744783 A	08-03-2006
JP 2006066368 A	09-03-2006						
KR 20060020030 A	06-03-2006						

US 2006088698	A1	27-04-2006	EP 1802702 A2	04-07-2007			
			JP 2008518397 T	29-05-2008			
			US 2009050855 A1	26-02-2009			
			WO 2006047079 A2	04-05-2006			

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	用于平板显示器的供体基板和和使用其制造有机发光二极管 (OLED) 显示器的方法		
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其他公开文献	EP1852921A2		
外部链接	Espacenet		

摘要(译)

用于平板显示器的供体基板包括基膜，基膜上的光热转换层，光热转换层上的第一缓冲层，第一缓冲层包括发光基质材料，第一缓冲层上的转移层和转移层上的第二缓冲层，第二缓冲层包括与第一缓冲层的发射主体材料基本相似的发射主体材料。

FIG. 2

