



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
18.10.2017 Bulletin 2017/42

(51) Int Cl.:
H01L 51/52^(2006.01) H01L 51/56^(2006.01)

(43) Date of publication A2:
23.04.2014 Bulletin 2014/17

(21) Application number: **13171631.8**

(22) Date of filing: **12.06.2013**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
 Designated Extension States:
BA ME

(71) Applicant: **Samsung Display Co., Ltd. Gyeonggi-do (KR)**

(72) Inventor: **Choe, Won-Kyu Gyunggi-Do (KR)**

(74) Representative: **Walaski, Jan Filip et al Venner Shipley LLP 200 Aldersgate London EC1A 4HD (GB)**

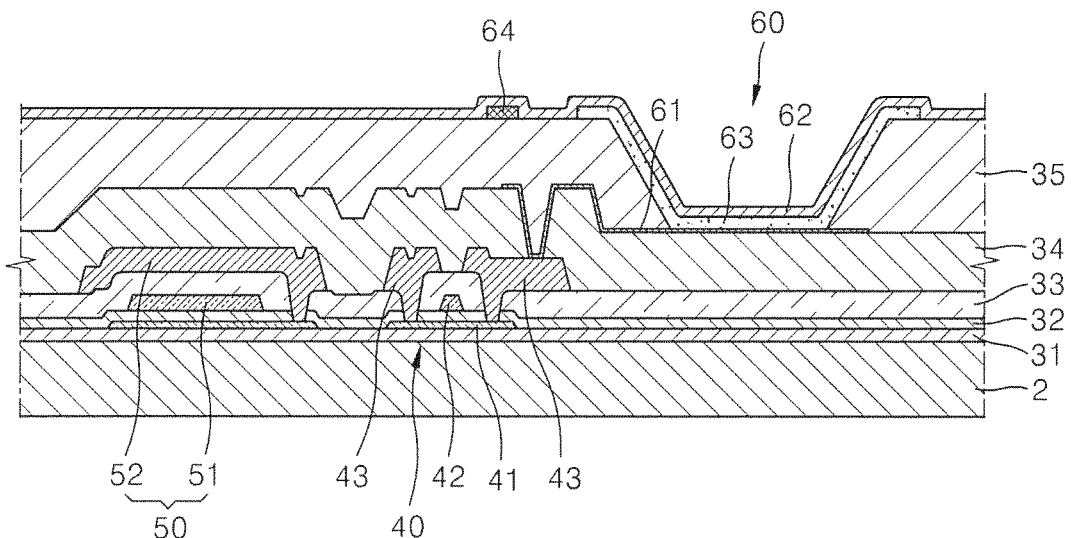
(30) Priority: **22.10.2012 KR 20120117504**

(54) **Organic light-emitting display apparatus and method of manufacturing the same**

(57) An organic light-emitting display apparatus includes: a substrate; a plurality of thin film transistors on the substrate, each of the thin film transistors including an active layer, a gate electrode, and source and drain electrodes; first electrodes electrically connected to the plurality of thin film transistors, respectively, and being on respective pixels corresponding to the plurality of thin

film transistors; organic layers on the first electrodes, respectively, and including light-emitting layers; auxiliary electrodes each of which is on at least a portion between adjacent organic layers of the organic layers; and a second electrode facing the first electrodes and covering the organic layers and the auxiliary electrodes.

FIG. 13





EUROPEAN SEARCH REPORT

Application Number
EP 13 17 1631

5

10

15

20

25

30

35

40

45

50

55

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2003/137325 A1 (YAMAZAKI SHUNPEI [JP] ET AL) 24 July 2003 (2003-07-24)	1-3,10, 11	INV. H01L51/52
Y	* the whole document *	12-18	H01L51/56
X	US 2003/201716 A1 (YAMAZAKI SHUNPEI [JP] ET AL) 30 October 2003 (2003-10-30)	1-3,10, 11	
Y	* paragraphs [0075] - [0078]; figure 1A *	12-18	
Y,D	US 2012/097992 A1 (JEONG DONG-SEOB [KR]) 26 April 2012 (2012-04-26)	12-18	
	* paragraph [0106] *		
			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 7 September 2017	Examiner Wolfbauer, Georg
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			

EPO FORM 1503 03/02 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 13 17 1631

5 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
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.


07-09-2017

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003137325 A1	24-07-2003	CN 1434668 A	06-08-2003
		CN 101369634 A	18-02-2009
		CN 102214796 A	12-10-2011
		EP 1331666 A2	30-07-2003
		EP 2509109 A2	10-10-2012
		JP 5586636 B2	10-09-2014
		JP 5712245 B2	07-05-2015
		JP 6074389 B2	01-02-2017
		JP 2010153397 A	08-07-2010
		JP 2012094538 A	17-05-2012
		JP 2013175470 A	05-09-2013
		JP 2014197558 A	16-10-2014
		JP 2016015339 A	28-01-2016
		KR 20030064303 A	31-07-2003
		SG 126714 A1	29-11-2006
		SG 143063 A1	27-06-2008
		TW 1277359 B	21-03-2007
		TW 1278255 B	01-04-2007
		US 2003137325 A1	24-07-2003
		US 2005012105 A1	20-01-2005
US 2007114921 A1	24-05-2007		
US 2010230664 A1	16-09-2010		
US 2012097994 A1	26-04-2012		
US 2015008458 A1	08-01-2015		
US 2016218160 A1	28-07-2016		
US 2003201716 A1	30-10-2003	JP 2003317971 A	07-11-2003
		US 2003201716 A1	30-10-2003
		US 2008252207 A1	16-10-2008
		US 2012098013 A1	26-04-2012
		US 2014027803 A1	30-01-2014
		US 2014346492 A1	27-11-2014
		US 2016343793 A1	24-11-2016
US 2012097992 A1	26-04-2012	KR 20120042155 A	03-05-2012
		US 2012097992 A1	26-04-2012

专利名称(译)	有机发光显示装置及其制造方法		
公开(公告)号	EP2722888A3	公开(公告)日	2017-10-18
申请号	EP2013171631	申请日	2013-06-12
[标]申请(专利权)人(译)	三星显示有限公司		
申请(专利权)人(译)	三星DISPLAY CO. , LTD.		
当前申请(专利权)人(译)	三星DISPLAY CO. , LTD.		
[标]发明人	CHOE WON KYU		
发明人	CHOE, WON-KYU		
IPC分类号	H01L51/52 H01L51/56		
CPC分类号	H01L27/3246 H01L27/3279 H01L51/5228 H01L51/56 H01L27/3244 H01L2227/323 H01L27/3206		
优先权	1020120117504 2012-10-22 KR		
其他公开文献	EP2722888A2		
外部链接	Espacenet		

摘要(译)

一种有机发光显示装置，包括：基板;基板上的多个薄膜晶体管，每个薄膜晶体管包括有源层，栅电极，以及源电极和漏电极;第一电极分别电连接到多个薄膜晶体管，并且位于与多个薄膜晶体管对应的各个像素上;第一电极上的有机层分别包括发光层;辅助电极，每个辅助电极位于有机层的相邻有机层之间的至少一部分上;第二电极面向第一电极并覆盖有机层和辅助电极。

 INTERNATIONAL BUREAU OF PATENT COOPERATION EUROPEAN SEARCH REPORT		Application Number EP 13 17 1631
DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	US 2003/137325 A1 (YAMAZAKI SHUNPEI [JP] ET AL) 24 July 2003 (2003-07-24)	1-3, 10, 11, 12-18
Y	* the whole document	
X	US 2003/201716 A1 (YAMAZAKI SHUNPEI [JP] ET AL) 30 October 2003 (2003-10-30)	1-3, 10, 11, 12-18
Y	* paragraphs [0075] - [0078]; figure 1A	
Y, D	US 2012/097992 A1 (JONG DONG-SEOB [KR]) 26 April 2012 (2012-04-26)	12-18
	* paragraph [0106]	
CLASSIFICATION OF THE INVENTION (IPC) H01L51/52 H01L51/56		
TECHNICAL FIELDS SEARCHED (IPC) H01L		
The present search report has been drawn up for all claims. Place of search: Munich Date of invention of the claim: 7 September 2017 Examiner: Wolfbauer, Georg		
CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone E: theory or principle underlying the invention Y: substantially relevant if considered with another document of the same category F: prior patent document, but published on, or after, the filing of the application A: document of the prior art D: other literature of the application P: intermediate document L: document cited for other reasons I: information document A: member of the same patent family, corresponding document		