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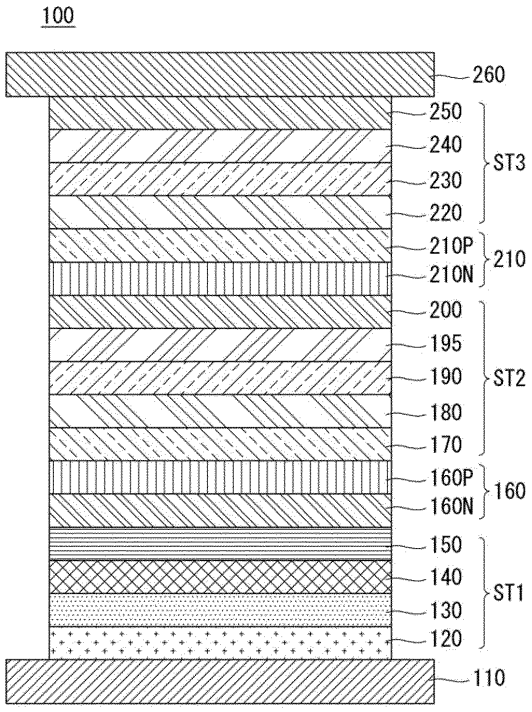
(54) ORGANIC LIGHT EMITTING DISPLAY DEVICE

(57) An organic light emitting display device (100) is disclosed. The organic light emitting display device comprises a first light emitting part (ST1) between an anode (110) and a cathode (260), the first light emitting part having a first light emitting layer (140), and a second light emitting part (ST2) over the first light emitting part, the second light emitting part having a second light emitting layer (190) and a third light emitting layer (195), wherein the second light emitting layer includes a hole-type host and a first electron-type host, and the third light emitting layer includes a first electron-type host and a second electron-type host.

FIG. 1



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EUROPEAN SEARCH REPORT

Application Number
EP 15 18 7643

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 Y A	US 2014/124766 A1 (SONG KI-WOOG [KR] ET AL) 8 May 2014 (2014-05-08) * figures 9,10 * * paragraphs [0038], [0041], [0042], [0050], [0085], [0088] - [0090], [0094], [0096] *	1,3, 5-11,13 12 2,4	INV. H01L51/50 H01L27/32 ADD. H01L51/52
Y	GB 2 426 856 A (LG PHILIPS LCD CO LTD [KR]) 6 December 2006 (2006-12-06) * paragraph [0059] *	12	
A	US 2014/167016 A1 (YOO TAE SUN [KR] ET AL) 19 June 2014 (2014-06-19) * figures 1,7 * * paragraphs [0050] - [0055], [0087] - [0089] *	1-13	

TECHNICAL FIELDS SEARCHED (IPC)

H01L

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	13 May 2016	De Laere, Ann

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
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D : document cited in the application
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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 15 18 7643

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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13-05-2016

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2014124766 A1	08-05-2014	CN 103811531 A	21-05-2014
		DE 102013112000 A1	08-05-2014
		US 2014124766 A1	08-05-2014
GB 2426856 A	06-12-2006	CN 1866536 A	22-11-2006
		DE 102006023511 A1	22-03-2007
		FR 2886059 A1	24-11-2006
		GB 2426856 A	06-12-2006
		JP 2006332049 A	07-12-2006
		KR 20060120506 A	27-11-2006
		TW I345428 B	11-07-2011
		US 2006261731 A1	23-11-2006
US 2014167016 A1	19-06-2014	CN 103872253 A	18-06-2014
		DE 102013112602 A1	18-06-2014
		GB 2510690 A	13-08-2014
		US 2014167016 A1	19-06-2014
		US 2016079556 A1	17-03-2016

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)	有机发光显示装置		
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[标]申请(专利权)人(译)	乐金显示有限公司		
申请(专利权)人(译)	LG DISPLAY CO. , LTD.		
当前申请(专利权)人(译)	LG DISPLAY CO. , LTD.		
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IPC分类号	H01L51/50 H01L27/32 H01L51/52		
优先权	1020140175347 2014-12-08 KR		
其他公开文献	EP3032600A2		
外部链接	Espacenet		

摘要(译)

公开了一种有机发光显示装置（100）。有机发光显示装置包括在阳极（110）和阴极（260）之间的第一发光部分（ST1），第一发光部分具有第一发光层（140）和第二发光部分（ST2）在第一发光部分上方，第二发光部分具有第二发光层（190）和第三发光层（195），其中第二发光层包括空穴型主体和第一电子 - 类型主体，第三发光层包括第一电子型主体和第二电子型主体。

FIG. 1