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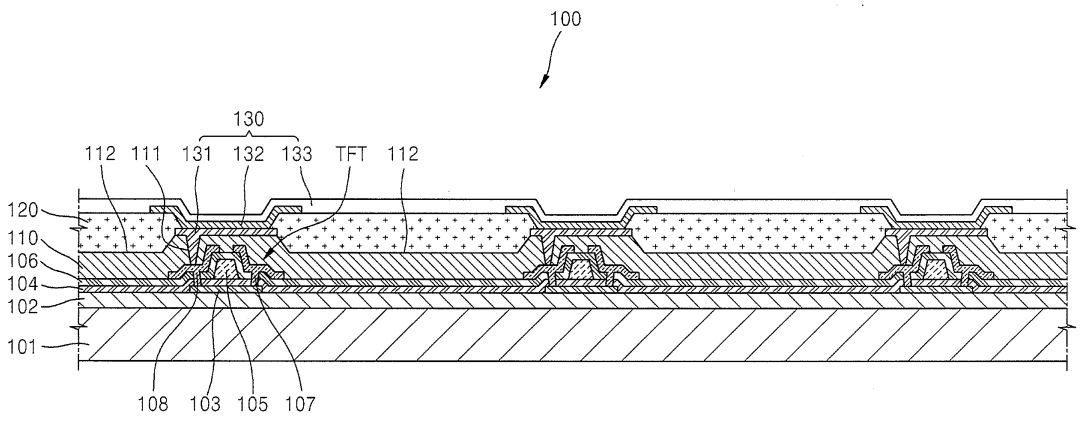
(54) Organic light emitting diode display apparatus and method of manufacturing the same

(57) An organic light emitting diode (OLED) display apparatus, including a substrate (101), at least one thin film transistor (TFT) on the substrate, an insulating layer covering the at least one TFT and having a via hole (111) and a groove (112), a first electrode (131) on the insulating layer and electrically connected to the at least one TFT through the via hole, a pixel define layer (120) on the first electrode and the groove, the pixel define layer having an opening that exposes the first electrode; an intermediate layer (132) electrically connected to the first electrode through the opening, the intermediate layer including an organic emissive layer, and a second electrode (133) on the intermediate layer. The organic emissive layer may be easily formed in the opening because a step between the organic emissive layer and the pixel define layer may be reduced as a portion of pixel define layer fills the groove.

FIG. 1



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EUROPEAN SEARCH REPORT

Application Number
EP 09 16 5021

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2005/285100 A1 (JEONG CHANG-YONG [KR] ET AL) 29 December 2005 (2005-12-29) * paragraphs [0003] - [0017], [0024] - [0037]; figure 2 *	1-3,6-8, 10,11,13	INV. H01L27/32 H01L51/00
X	US 2006/082293 A1 (KANG TAE-WOOK [KR] ET AL) 20 April 2006 (2006-04-20) * paragraphs [0006], [0007], [0030] - [0054]; figure 3B *	1-3,5-8, 10,11, 13,14	
X	US 2006/076887 A1 (KANG TAE-WOOK [KR]) 13 April 2006 (2006-04-13) * paragraphs [0003], [0007] - [0009], [0015], [0022] - [0043]; figure 2 *	1-5, 7-12,14	

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
Munich	15 April 2013	Boetticher, Harald

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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15-04-2013

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

专利名称(译)	有机发光二极管显示装置及其制造方法		
公开(公告)号	EP2144292A3	公开(公告)日	2013-05-22
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[标]申请(专利权)人(译)	三星显示有限公司		
申请(专利权)人(译)	三星移动显示器有限公司.		
当前申请(专利权)人(译)	三星DISPLAY CO.，LTD.		
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优先权	1020080067829 2008-07-11 KR		
其他公开文献	EP2144292A2		
外部链接	Espacenet		

摘要(译)

一种有机发光二极管（OLED）显示装置，包括基板（101），基板上的至少一个薄膜晶体管（TFT），覆盖所述至少一个TFT并具有通孔（111）的绝缘层和凹槽（112），绝缘层上的第一电极（131）和通过通孔电连接到至少一个TFT，第一电极上的像素限定层（120）和凹槽，像素限定层具有暴露第一电极的开口;中间层（132）通过开口电连接到第一电极，中间层包括有机发光层，和中间层上的第二电极（133）。有机发光层可以容易地形成在开口中，因为有机发光层和像素限定层之间的台阶可以随着像素限定层的一部分填充凹槽而减小。

FIG. 1