

SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application Number
EP 15 77 5604

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 2011/248294 A1 (WEAVER MICHAEL S [US] ET AL) 13 October 2011 (2011-10-13)	1,3-9, 11,12,15	INV. H01L27/32
Y	* paragraphs [0016], [0017], [0023], [0024], [0055], [0086], [0090] - [0096], [0103] - [0105], [0108] - [0109]; figures 7,8,11,12 *	2,10	G09G3/3233
Y	WO 2009/154285 A1 (CANON KK [JP]; ITO NAOYUKI [JP]; MIZUNO NOBUTAKA [JP]; NAKAMURA NAOTO) 23 December 2009 (2009-12-23) * pages 9,17; figures 3,4a,4b *	1,3-6,9, 11,12,15	
Y	JP 2010 096894 A (CANON KK) 30 April 2010 (2010-04-30) * paragraphs [0080] - [0093]; figures 6,7 *	1,3-9, 11,12,15	
Y	WO 2010/000976 A2 (COMMISSARIAT ENERGIE ATOMIQUE [FR]; VAUFREY DAVID [FR]; PRAT CHRISTOPH) 7 January 2010 (2010-01-07) * pages 5,10,11; figure 3 *	1,3-9, 11,12,15	TECHNICAL FIELDS SEARCHED (IPC)
Y	JAMES L SANFORD AND FRANK R LIBSCH ET AL: "4.2: TFT AMOLED Pixel Circuits and Driving Methods", 2003 SID INTERNATIONAL SYMPOSIUM - MAY 20, BALTIMORE, MARYLAND, vol. XXXIV, 20 May 2003 (2003-05-20), pages 10-13, XP007008187, * page 11; figure 3 *	2,10	H01L H05B G09G
A	JP 2005 174639 A (SEIKO EPSON CORP) 30 June 2005 (2005-06-30) * figures 1,2 *	1-15	
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The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
Place of search The Hague		Date of completion of the search 17 May 2018	Examiner Faou, Marylène
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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EPO FORM 1503 03.82 (P04C04)

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

EP 15 77 5604

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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17-05-2018

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2011248294 A1	13-10-2011	US 2011248294 A1	13-10-2011
		WO 2012138999 A1	11-10-2012

WO 2009154285 A1	23-12-2009	CN 102067728 A	18-05-2011
		JP 5460107 B2	02-04-2014
		JP 2010027595 A	04-02-2010
		US 2011085068 A1	14-04-2011
		WO 2009154285 A1	23-12-2009

JP 2010096894 A	30-04-2010	NONE	

WO 2010000976 A2	07-01-2010	EP 2311093 A2	20-04-2011
		FR 2933536 A1	08-01-2010
		JP 5743888 B2	01-07-2015
		JP 2011526723 A	13-10-2011
		KR 20110031960 A	29-03-2011
		US 2011181178 A1	28-07-2011
		WO 2010000976 A2	07-01-2010

JP 2005174639 A	30-06-2005	NONE	

US 2005264550 A1	01-12-2005	US 2005264550 A1	01-12-2005
		US 2009189834 A1	30-07-2009

专利名称(译)	有机电致发光显示装置及其驱动方法和显示装置		
公开(公告)号	EP3203521A4	公开(公告)日	2018-06-27
申请号	EP2015775604	申请日	2015-01-16
[标]申请(专利权)人(译)	京东方科技集团股份有限公司 北京京东方光电科技有限公司		
申请(专利权)人(译)	京东方科技集团股份有限公司. 北京京东方光电科技有限公司.		
当前申请(专利权)人(译)	京东方科技集团股份有限公司. 北京京东方光电科技有限公司.		
[标]发明人	YANG SHENGJI DONG XUE XUE HAILIN WANG HAISHENG ZHAO YIMING SUN XIAO LIU PENG LIU HONGJUAN LIU YINGMING		
发明人	YANG, SHENGJI DONG, XUE XUE, HAILIN WANG, HAISHENG ZHAO, YIMING SUN, XIAO LIU, PENG LIU, HONGJUAN LIU, YINGMING		
IPC分类号	H01L27/32 G09G3/32 G09G3/3208		
CPC分类号	H01L27/3209 G09G3/3208 G09G3/3233 G09G2300/023 G09G2300/0439 G09G2300/0452 G09G2300/0861 G09G2310/0262 H01L27/3211 H01L27/3248		
优先权	201410515749.X 2014-09-29 CN		
其他公开文献	EP3203521A1		
外部链接	Espacenet		

摘要(译)

公开了一种有机发光二极管显示单元，其驱动方法和显示装置。像素单元（11）的至少一部分是像素单元（11），每个像素单元具有堆叠结构；具有堆叠结构的每个像素单元（11）包括两个相邻的子像素单元堆叠组（110）；每个子像素单元堆叠组（110）包括至少两个子像素单元（111），所述子像素单元（111）具有不同的发光颜色并且彼此堆叠和绝缘。在显示不同图像帧期间，具有堆叠结构的每个像素单元（11）中的每个子像素单元堆叠组（110）可以基于所施加的信号显示至少两种颜色的灰度效果。与每个子像素单元仅能够针对不同图像帧仅显示一种颜色的灰度效果的方法相比，可以提高显示效果。



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Category	Classification of documents with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2011/028294 A1 (HEAVER MICHAEL S [US] ET AL) 13 October 2011 (2011-10-13) * paragraphs [0016], [0017], [0023], [0024], [0055], [0086], [0090] - [0091], [0103], [0106], [0108] - [0109]; figures 7, 8, 11, 12	1, 3-9, 11, 12, 15, 2-10	INT. H01L27/32 G09G3/3233
Y	WO 2009/154285 A1 (CANON KK [JP]; ITO NAOTYUKI [JP]; MIZUNO NOBUTAKA [JP]; NAKAMURA NAOTO) 23 December 2009 (2009-12-23) * pages 9, 17; figures 3, 4, 4a, 4b, 4c JP 2010 096894 A (CANON KK) 30 April 2010 (2010-04-30) * paragraphs [0080] - [0093]; figures 6, 7	1, 3-6, 9, 11, 12, 15	
Y	WO 2010/000976 A2 (COMMISSARIAT ENERGIE ATOMIQUE [FR]; VAUFREY DAVID [FR]; PRAT CHRISTOPHE) 7 January 2010 (2010-01-07) * pages 5, 10, 11; figure 3	1, 3-9, 11, 12, 15	TECHNICAL FEATURES NOTED (IPC)
Y	JAMES L SANFORD AND FRANK R LIESCH ET AL: "4:2:2 TFT AMOLED Pixel Circuits and Driving Methods" 2003 SID INTERNATIONAL SYMPOSIUM - MAY 20, BALTIMORE, MARYLAND, vol. XXXIV, 20 May 2003 (2003-05-20), pages 10-13, XP007006187, * page 11; figure 3	2, 10	H01L H05B G09G
A	JP 2005 174639 A (SEIKO EPSON CORP) 30 June 2005 (2005-06-30) * figures 1, 2	1-15	

The classification search report has been drafted on the basis of the information available at the time of the search.			
Place of search		Date of completion of the search	Searcher
The Hague		17 May 2018	Faou, Marylène
CATEGORY OF CITED DOCUMENTS			
X	Document cited in the description	1. Priority or foreign application of the invention	
Y	Document cited in the description	2. Document cited in the description, but not cited in the claims	
A	Document cited in the description	3. Document cited in the description, but not cited in the claims, and not cited in the state of the art	
W	Document cited in the description	4. Document cited in the description, but not cited in the claims, and not cited in the state of the art, and not cited in the state of the art	
U	Document cited in the description	5. Document cited in the description, but not cited in the claims, and not cited in the state of the art, and not cited in the state of the art, and not cited in the state of the art	