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(54) Improved electroluminescent devices and displays with integrally fabricated address and logic devices fabricated by printing or weaving.

(57) Improved electroluminescent and photonic devices with integrated logic and control circuits are disclosed. Low mobility, contact barrier, space charge limitation and carrier balancing are provided solutions that increase efficiency, reliability and longevity of the devices. Device power loss and power requirements are reduced. True-ohmic contact materials allow a gate-controlled, light emitting organic triode MESFET configuration that eliminates commonly used ITO thereby increasing luminous output, and providing ease of address and control by integrally fabricated complementary MESFET address and control circuitry. The devices can be fabricated by printing or by weaving appropriate materials, and can be configured as color displays.

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EUROPEAN SEARCH REPORT

Application Number
EP 11 19 0401

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	HOROWITZ G: "ORGANIC FIELD-EFFECT TRANSISTORS", ADVANCED MATERIALS, WILEY VCH VERLAG, DE, vol. 10, no. 5, 23 March 1998 (1998-03-23) , pages 365-377, XP000739178, ISSN: 0935-9648, DOI: 10.1002/(SICI)1521-4095(199803)10:5&LT,365::AID-ADMA365&GT,3.0.CO,2- * Section 2.2.figure 1b *	1,9,17, 18	INV. H01L27/14 H01L31/00 H01L31/0224 H01L31/18 H01L51/05 H01L51/10 H01L51/52
A	US 5 977 718 A (CHRISTENSEN ALTON O [US]) 2 November 1999 (1999-11-02) * the whole document *	1,9,17, 18	
A	US 6 197 663 B1 (CHANDROSS EDWIN ARTHUR [US] ET AL) 6 March 2001 (2001-03-06) * column 6, line 3 - line 12 *	1,9,17, 18	
			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	2 April 2012	Wolfbauer, Georg

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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A : technological background
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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 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 11 19 0401

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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02-04-2012

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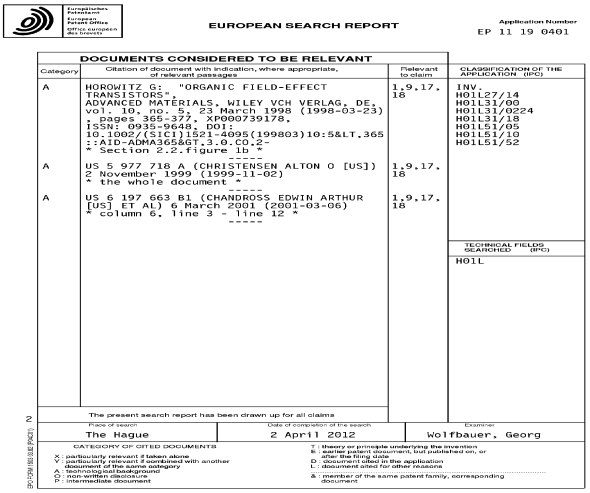
For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	改进的电致发光器件和显示器具有通过印刷或编织制造的整体制造的地址和逻辑器件。		
公开(公告)号	EP2423960A3	公开(公告)日	2012-05-09
申请号	EP2011190401	申请日	2002-03-28
[标]申请(专利权)人(译)	萨隆加ACCESS		
申请(专利权)人(译)	萨隆加ACCESS LLC		
当前申请(专利权)人(译)	萨隆加ACCESS LLC		
[标]发明人	CHRISTENSEN ALTON O		
发明人	CHRISTENSEN, ALTON O		
IPC分类号	H01L27/14 H01L31/00 H01L31/0224 H01L31/18 H01L51/05 H01L51/10 H01L51/52 H01J1/62 H01L27/32 H01L29/76 H05B33/00 H05B33/14		
CPC分类号	H01L51/0508 H01L27/308 H01L27/32 H01L27/3216 H01L27/3218 H01L51/0512 H01L51/102 H01L51/105 H01L51/5203 H01L51/5287 H01L51/5296 Y10S428/917		
代理机构(译)	CARPMAELS和兰斯福德		
优先权	09/823269 2001-03-30 US		
其他公开文献	EP2423960B1 EP2423960A2		
外部链接	Espacenet		

摘要(译)

公开了具有集成逻辑和控制电路的改进的电致发光和光子器件。提供低移动性，接触屏障，空间电荷限制和载波平衡的解决方案，以提高设备的效率，可靠性和寿命。降低了设备功率损耗和功率要求。真欧姆接触材料允许栅极控制的发光有机三极管MESFET配置，其消除了常用的ITO，从而增加了光输出，并通过整体制造的互补MESFET地址和控制电路提供了易于寻址和控制。这些装置可以通过印刷或编织适当的材料来制造，并且可以配置为彩色显示器。



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TECHNICAL FIELDS SEARCHED (IPC)
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