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(54) Self-emissive display device of active matrix type and organic EL display device of active matrix type

(57) In a self-emissive display device including a selection TFT (4) having a gate connected to a gate line (1) and a drain connected to a data line (2), and a driving TFT (6) having a gate connected to a source of the selection TFT (4), a positive power source PV, the driving TFT (6), an organic EL emissive element (7), and a negative power source CV are connected in series. Because a shift voltage for shifting a correlation curve between the gate signal and the luminance of emitted light is applied to the negative power source CV, there is no need to raise the voltage level of the data signal by the voltage producing no effect on displayed tone. Accordingly, power consumption is reduced, and the data signal can be supplied by a circuit manufactured through a common CMOS process, leading to a reduction in manufacturing costs.

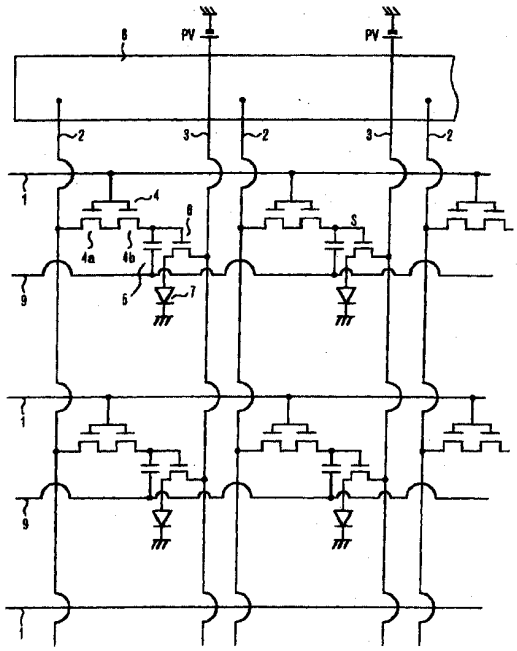

Fig. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 01 30 6584

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 6 023 259 A (PRACHE OLIVIER ET AL) 8 February 2000 (2000-02-08) * column 1, line 11-15 - column 5, line 33; figures 1,2 * * column 5, line 29-67 - column 4, line 27-29; figures 2,4 * * column 6, line 26-35; figure 4 * * column 4, line 27-29; figures 2,4 * * column 5, line 29-33 *	1,2,4,7	G09G3/32
Y	* column 4, line 27-29; figures 2-4 *	3	
Y	US 5 598 180 A (SUZUKI KOUHEI ET AL) 28 January 1997 (1997-01-28) * column 2, line 12-24 - column 2, line 38-42; figures 1-3 *	3	
A,P	EP 1 096 465 A (SEMICONDUCTOR ENERGY LAB) 2 May 2001 (2001-05-02) * column 1-6 - column 27, line 3-5; figures 13-19 *		
A	WO 99 38148 A (FED CORP ;MALAVIYA SHASHI (US); HOWARD WEBSTER E (US); PRACHE OLIV) 29 July 1999 (1999-07-29) * page 5 - page 6; figures 1,2 * * page 8, line 5,6 *		TECHNICAL FIELDS SEARCHED (Int.Cl.7) G09G H01L

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
MUNICH	6 March 2002	Wolff, L

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 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 01 30 6584

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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06-03-2002

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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)	有源矩阵型自发光显示器件和有源矩阵型有机EL显示器件		
公开(公告)号	EP1178463A3	公开(公告)日	2002-04-24
申请号	EP2001306584	申请日	2001-07-31
[标]申请(专利权)人(译)	三洋电机株式会社		
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当前申请(专利权)人(译)	SANYO ELECTRIC CO.，LTD.		
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发明人	KOMIYA, NAOAKI		
IPC分类号	H01L51/50 G09F9/30 G09G3/20 G09G3/30 G09G3/32 H01L27/12 H01L27/32 H05B33/00		
CPC分类号	G09G3/3233 G09G2300/0842 G09G2310/06 G09G2320/043 G09G2330/021 H01L27/12 H01L27/3244		
优先权	2000231854 2000-07-31 JP		
其他公开文献	EP1178463A2 EP1178463B1		
外部链接	Espacenet		

摘要(译)

在自发光显示装置中，包括选择TFT（4），其栅极连接到栅极线（1），漏极连接到数据线（2），驱动TFT（6）的栅极连接到数据线（2）选择TFT（4）的源极，正电源PV，驱动TFT（6），有机EL发光元件（7）和负电源CV串联连接。因为用于移动栅极信号和发光亮度之间的相关曲线的移位电压被施加到负电源CV，所以不需要通过电压来升高数据信号的电压电平而不会对显示的音调产生影响。。因此，降低了功耗，并且可以通过通过普通CMOS工艺制造的电路提供数据信号，从而降低了制造成本。

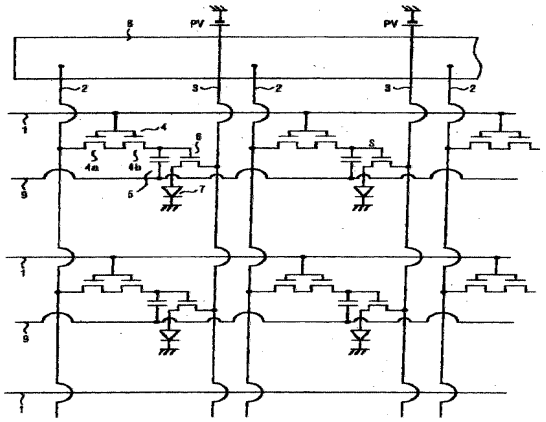

Fig. 1