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(54) **EL display device, driving method thereof, and electronic equipment provided with the EL display device**

(57) An EL display device capable of performing clear multi-gradation color display and electronic equipment provided with the EL display device are provided, wherein gradation display is performed according to a time-division driving method in which the luminescence and non-luminescence of an EL element (109) disposed

in a pixel (104) are controlled by time, and the influence by the characteristic variability of a current controlling TFT (108) is prevented. When this method is used, a data signal side driving circuit (102) and a gate signal side driving circuit (103) are formed with TFTs that use a silicon film having a peculiar crystal structure and exhibit an extremely high operation speed.

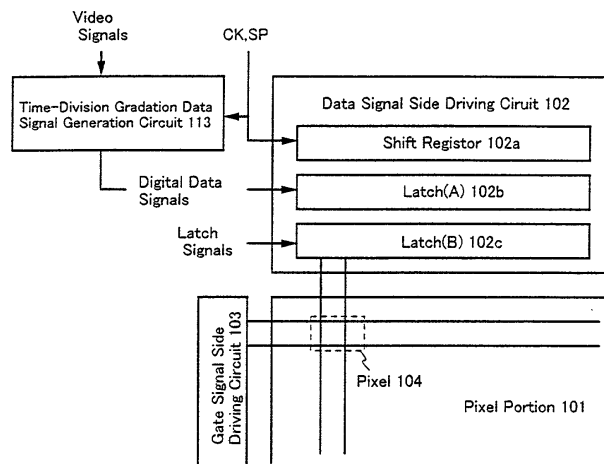


Fig. 1A

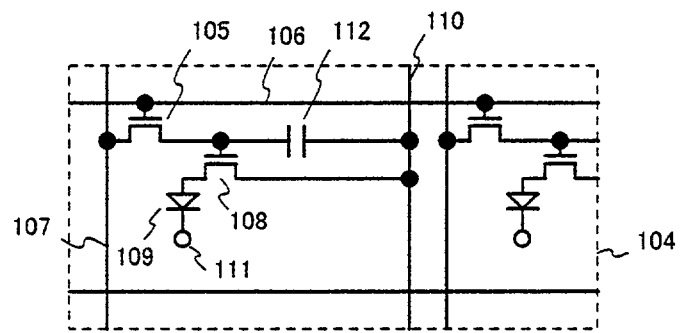


Fig. 1B



EUROPEAN SEARCH REPORT

Application Number
EP 00 11 2913

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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Y	* paragraphs [0040], [0049], [0091] - [0113], [0128]; figures 5,13 *	4,5,9,10	G09G3/30

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Y	* paragraphs [0022] - [0024]; figures 1,5 *	4,5,9,10	

			TECHNICAL FIELDS SEARCHED (IPC)
			H01L G09G
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 25 November 2008	Examiner Bakos, Tamás
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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**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 00 11 2913

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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专利名称(译)	EL显示装置，其驱动方法和具有EL显示装置的电子设备		
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CPC分类号	G09G3/3225 G09G3/2018 G09G3/2022 G09G3/30 G09G3/32 G09G3/3258 G09G2300/023 G09G2300/ /04 G09G2300/0408 G09G2300/0417 G09G2300/0426 G09G2300/0842 H01L27/1277 H01L27/1296 H01L27/156 H01L27/3244 H01L27/3246 H01L27/3262 H01L29/045 H01L29/0603 H01L29/786 H01L29/ /78621 H01L29/78624 H01L29/78627 H01L33/62 H01L51/529 H01L2251/5315 H01L2924/0002		
优先权	1999174734 1999-06-21 JP		
其他公开文献	EP1063704A2		
外部链接	Espacenet		

摘要(译)

提供一种能够进行清晰的多级彩色显示的EL显示装置和具有该EL显示装置的电子设备，其中，根据EL元件的发光和不发光的时分驱动方法进行灰度显示。设置在像素（104）中的（109）由时间控制，并且防止了电流控制TFT（108）的特性可变性的影响。当使用这种方法时，数据信号侧驱动电路（102）和栅极信号侧驱动电路（103）由TFT构成，这些TFT使用具有特殊晶体结构的硅膜并具有极高的操作速度。

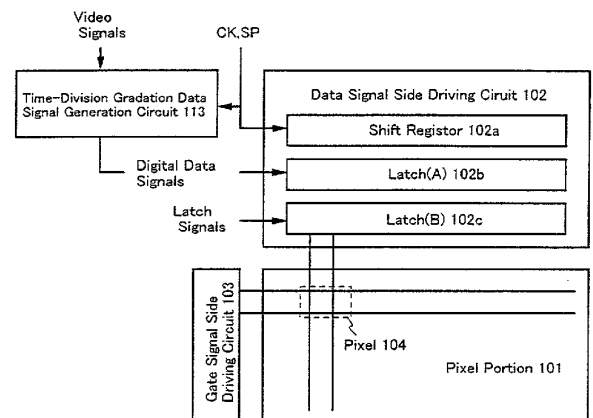


Fig. 1A