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(54) **Manufacturing method for reflection type liquid crystal display**

(57) On an insulating substrate (10), there are formed a first gate electrode (11), a gate insulating film (12), a semiconductor film (13), and an interlayer insulating film (15). Above the interlayer insulating film (15), a TFT is formed having a second gate electrode (17) connected to the first gate electrode (11). Then, a photosensitive resin (70) is formed over the entire surface

of the extant layers. Subsequently, first exposure (75) is applied using a first mask (71), and second exposure (76) is then applied using a second mask (72) with a larger amount of light than used for the first exposure. The second mask (72) has an opening at a position corresponding to a source (13s). Thereafter, the photosensitive resin film (70) is developed thereby forming a contact hole (73) and a recess (74).

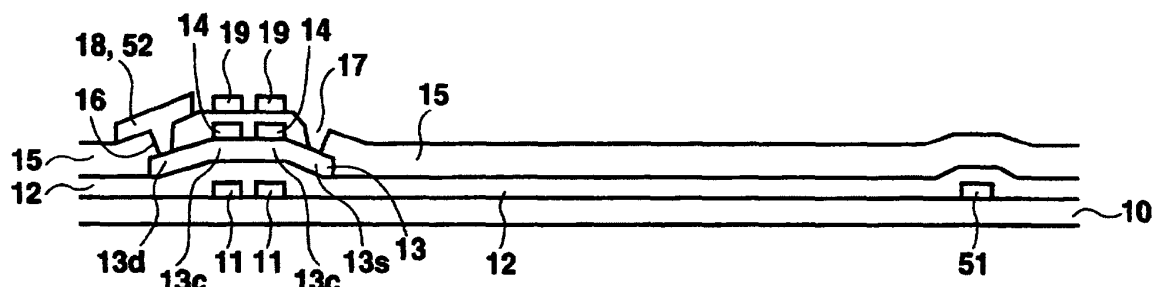


Fig. 1(a)

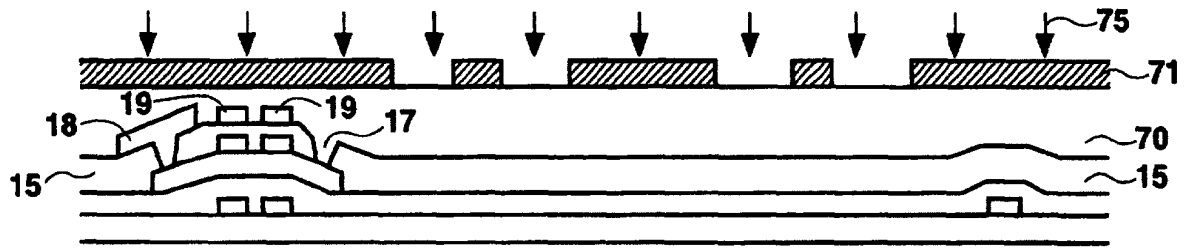


Fig. 1(b)

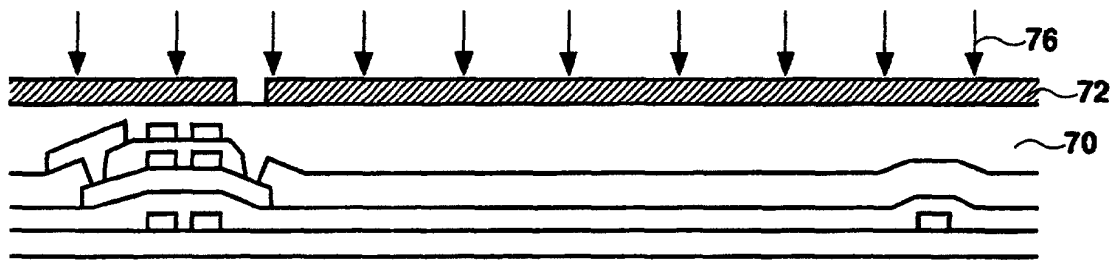


Fig. 1(c)

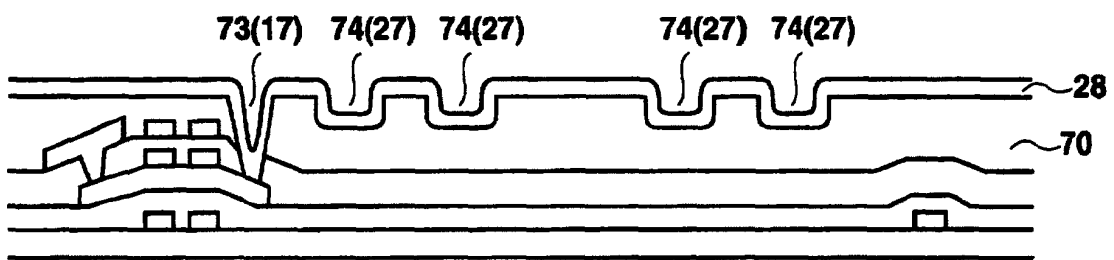


Fig. 1(d)

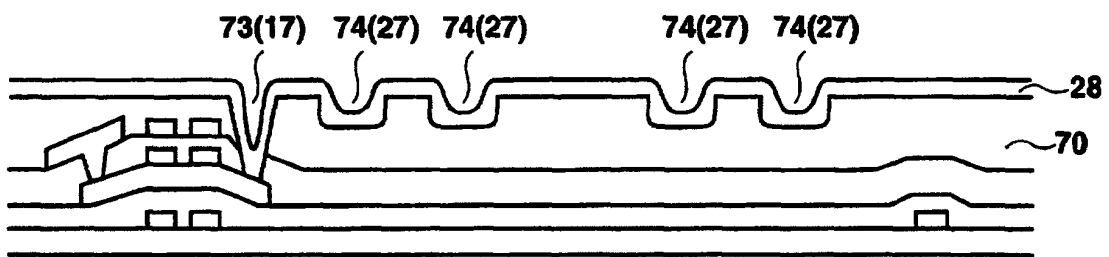


Fig. 1(e)



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 30 5867

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	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 13, 30 November 1998 (1998-11-30) -& JP 10 221704 A (SHARP CORP), 21 August 1998 (1998-08-21) * abstract * -& US 6 172 728 B1 (HIRAISHI) 9 January 2001 (2001-01-09) * column 9, line 61 - column 10, line 63 * * column 12, line 38 - line 46 * * figures 5-7 *	1,2,5	G02F1/1333
Y	---	3,4	
X	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 12, 29 October 1999 (1999-10-29) -& JP 11 183714 A (SHARP CORP), 9 July 1999 (1999-07-09) * abstract * -& US 5 973 843 A (NAKAMURA) 26 October 1999 (1999-10-26) * column 2, line 14 - line 28 * * column 3, line 14 - line 17 * * column 7, line 64 - column 8, line 65 * * figures 8A,8B *	1,2,5	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			G02F
Y	PATENT ABSTRACTS OF JAPAN vol. 1997, no. 09, 30 September 1997 (1997-09-30) -& JP 09 127553 A (SHARP CORP), 16 May 1997 (1997-05-16) * abstract * -& US 5 946 065 A (TAGUSA ET AL.) 31 August 1999 (1999-08-31) * column 9, line 5 - column 10, line 20 * * figures 1,2 * -----	3,4	
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 12 January 2004	Examiner Girardin, F
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 30 5867

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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12-01-2004

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专利名称(译)	反射型液晶显示器的制造方法		
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申请(专利权)人(译)	SANYO ELECTRIC CO. , LTD.		
当前申请(专利权)人(译)	SANYO ELECTRIC CO. , LTD.		
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CPC分类号	G02F1/133553 G02F1/136227		
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其他公开文献	EP1069458A2		
外部链接	Espacenet		

摘要(译)

在绝缘基板 (10) 上, 形成第一栅电极 (11), 栅极绝缘膜 (12), 半导体膜 (13) 和层间绝缘膜 (15)。在层间绝缘膜 (15) 上方, 形成 TFT, 其具有连接到第一栅电极 (11) 的第二栅电极 (17)。然后, 在现存层的整个表面上形成光敏树脂 (70)。随后, 使用第一掩模 (71) 施加第一次曝光 (75), 然后使用比第一次曝光所用的光量更大的第二掩模 (72) 施加第二次曝光 (76)。第二掩模 (72) 在对应于源 (13s) 的位置处具有开口。之后, 显影感光性树脂膜 (70), 形成接触孔 (73) 和凹部 (74)。

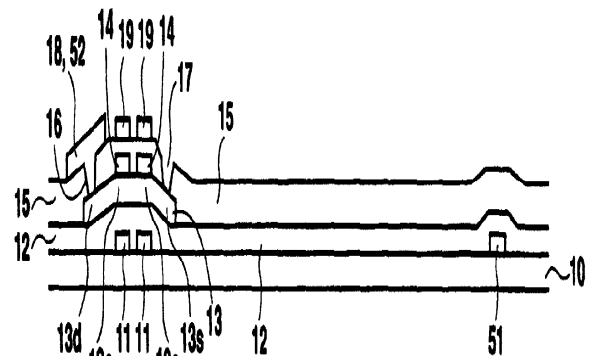


Fig. 1(a)