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(12)(KR)
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(24)2004 10 08
10-0451893
2004 09 24(21) 10-2000-0079352
(22) 2000 12 20(65)
(43)10-2001-0062564
2001 07 07

(30) 11-361086 1999 12 20 (JP)

(73) 가 가 가 , . 1753

(72) 5 7 1 가 가

5 7 1 가 가

5 7 1 가 가

5 7 1 가 가

5 7 1 가 가

5 7 1 가 가

5 7 1 가 가

가 5 7 1 가 가

5 7 1 가 가

5 7 1 가 가

(74)

:

(54)

()

(VA)

(TFT)

TFT , TFT

TFT

4

LCD, ,

1 VA ;
 2 1 ;
 3 VA ;
 4 1 ;
 5 , 4 가 ;
 6a 6b 4 가 ;
 7 (recess) (taper) ;
 8 (disclination) ;
 9 ;
 10 ;
 11 ;
 12 2 ;
 13 12 가 ;
 14 3 ;
 15 14 가 ;
 16 TFT ;
 17 .

1 : TFT 2, 22 :
 3 : TFT : 12
 13 : 14 :
 15 : 16 :
 17 ; 21 :
 31 :

(twisted nematic, TN) , (TFT)

TFT , TFT , ,

TFT , TN TFT , ,

가 , TN 가 ,

가 ,

가 ,

(vertical aligned, VA) , TN

TN . VA TFT

(homeotropic,) ,

가 , 가 ,

가 , 1 가

가 ,

VA 1

VA () ,

(disclination) ,

가 VA

7-311383 TFT (alignment control bank portion)

1 TFT VA

2 1

1 VA

TFT (81) (82) TFT (81) , (83)

TFT (87), (82) TFT(87) (86)

(88) (89) (88)

(82) , (92) (93) (91)

(93) (94)

2 (95) , (89, 94) TFT (81) (82) (93)

(95) , 가 (88) (93)

(95) (89 94) (88) (93)

(95) (88) (93)

(83) , 1 가

(88) (93) 가

(95) , 2 (95) (89, 94)

(89 94) (A B) VA

8-76125 , (,)

가 , 가 3

VA (96) (93) (88) , 가

(88) (93) 3 가

(88) (93) (wraparound) 가 (95) 가

가 (83) (95) 3

(A B) (96)

(88) VA

TFT 가 ,

가 가 , TFT

가 가 가 ,

가 가 가 ,

가 , 가 , ()

, (groove) 가

가

가 , 가

, ()

가

4 , VA

가 1 TFT (1), TFT (1),

2 (2) (3) TFT (1) (3) (2), TFT (1)

TFT (1) , (11), (11) TFT(

12), TFT (12) (13), (13) + (I

TO) (14), (14) TFT(12)

(13) TFT(12)가 (11) (15)

(14) (15) (16) (16)

(16) (13) (16) (16)

(16) (14) (16) (16)

(16) 5 μ m , 10 μ m (16) (14)

1 μ m 6a 6b (15) (15)

(15) (13) (14) (17) TFT(12)

(15)

TFT(12) , (51), (51) (, 52), (51)

(52) 가 (53), (53) (54) (55)

) (2) (22) (22) (21), (21) ITO

(2) (31) (15) (

22) , VA , 4 (15)

(22) 가 (31) 5 가

6a 6b 가 (31) 6b

6a (31) 6a 6b

가 (31) , 5 , TFT (1) (2)

(15) (22) 가 (16) (31) (16)

(15) 4

(31) 4

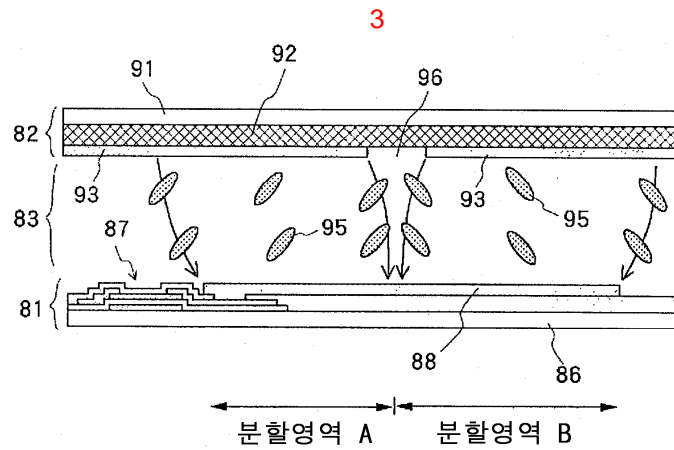
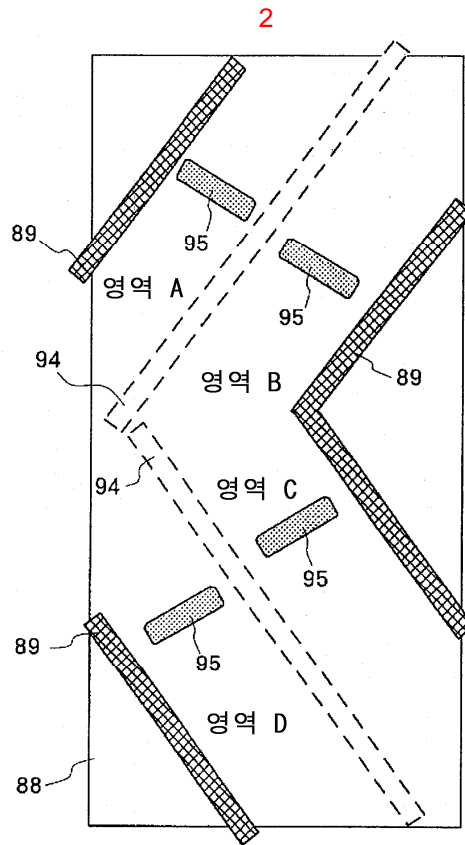
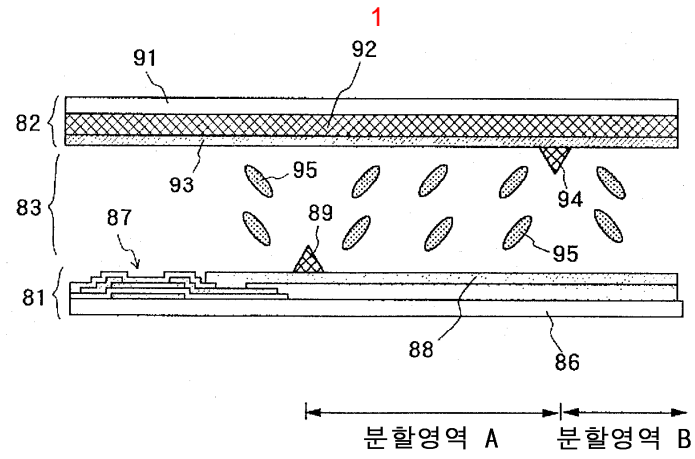
6a 6b (31)

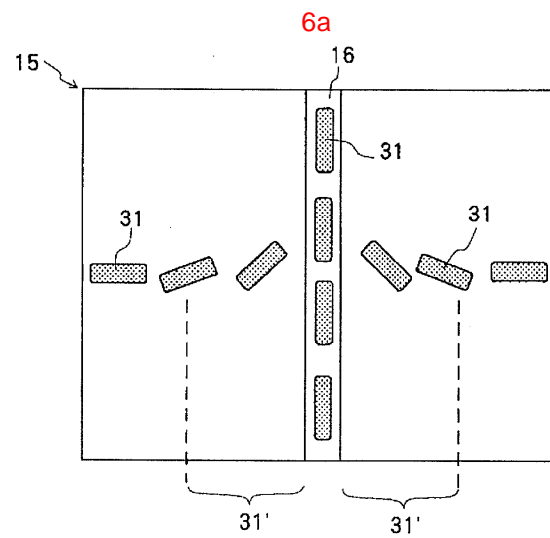
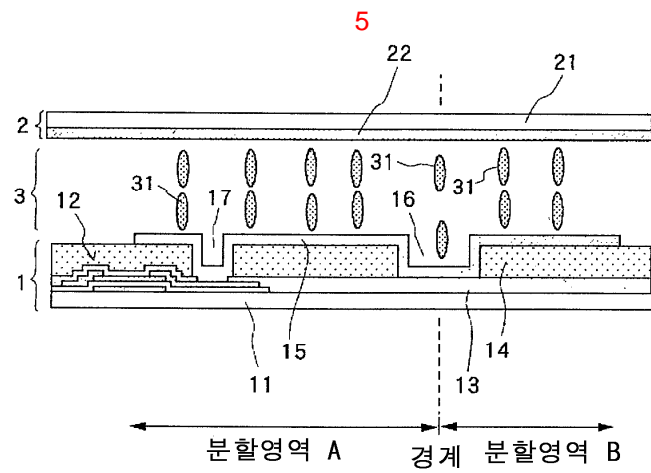
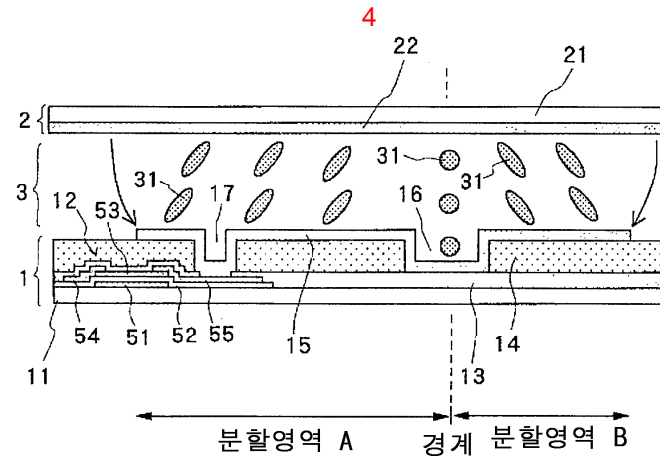
(15) , (16) (A B) (2) ,
 (16) , (31)
 가 ,
 4 가 (17) (15) (16) ,
 (17) (31) (17)
 , (15)
 , (16) 4 (16) (16)
 , 가 (31) (16)
 7 (6) 60 ° (16)
 (16) , 7-311383 , 90 °
 (31) , 30 °
 (16) 6a 6b (16)
 6a 6b (16)가 , 가 (3
 2)가 8 (16) 가 (32)
 2)가 가 가 , 가 (3
 (31) (32) 8
 (16) (32) (16)가
 9 , (16)가 (15) (31) (16)가
 (16)가 (16)가
 (16) , (16)가
 10 (32) 가 (16) (32)
 가 11 (32) 가 (16) (32) 가 ,
 (15) 가 (32)
 , 가
 (retardation)
 (biaxial stretching)
 , 2
 , 가 (31')
 6a , 1/4
 가 , 1/4
 1/4 45 ° ,
 12 13 2 가 가 , 가 (18)
 4, 5, 6a 6b (long side) (bank) 가 (18)
 가 (15) (15)
 TFT (1) (2) (15) (16)가
 , 가 (18) (16)가
 , (31) 가 (32)
 가 가 (16)가
 (16)

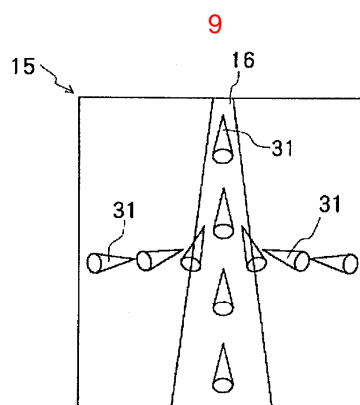
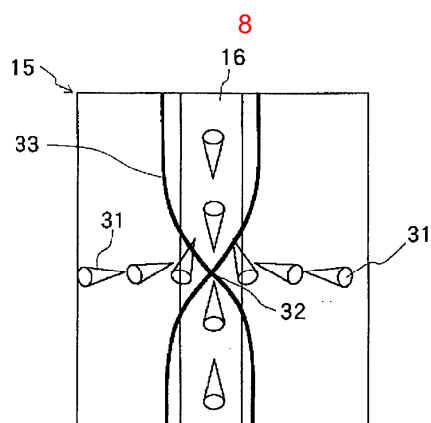
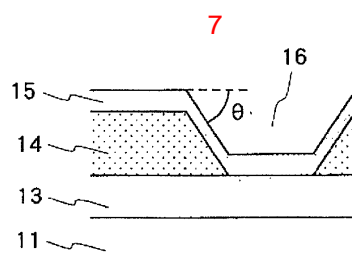
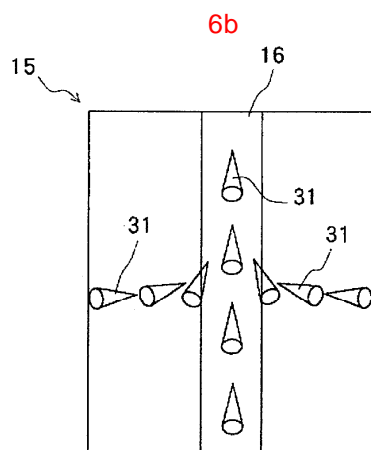
Figure 10: A complex diagram showing various mathematical expressions and symbols arranged in a grid-like structure. The expressions include numbers (14, 15, 16, 17, 22, 31, 41, 42, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1), fractions (e.g., $\frac{1}{2}$, $\frac{1}{3}$), and symbols (e.g., π , σ , τ , ρ , μ , ν , λ , κ , η , ζ , ξ , γ , β , α). The diagram is organized into several rows and columns, with some expressions grouped together and others separated by lines or boxes. The overall layout suggests a systematic arrangement of mathematical concepts or a proof structure.

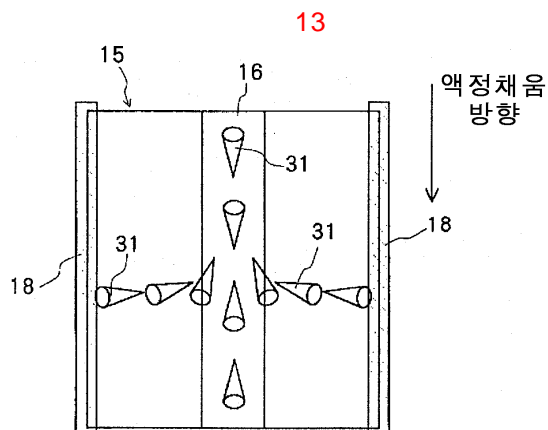
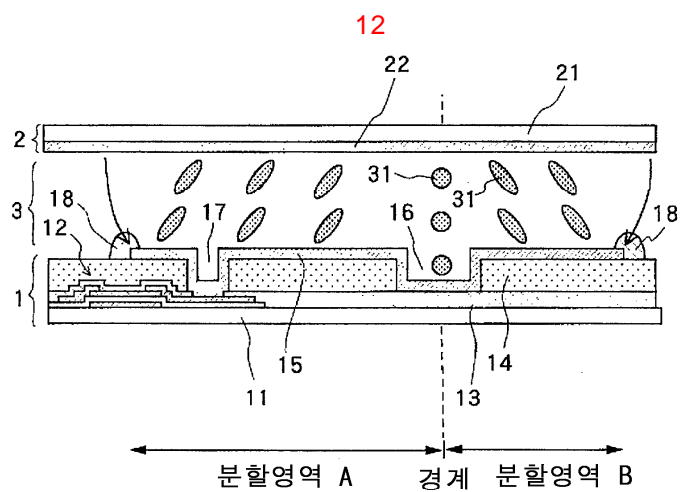
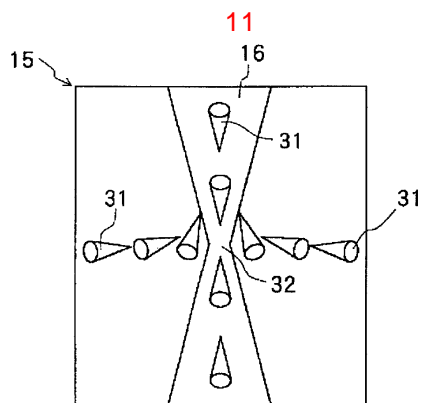
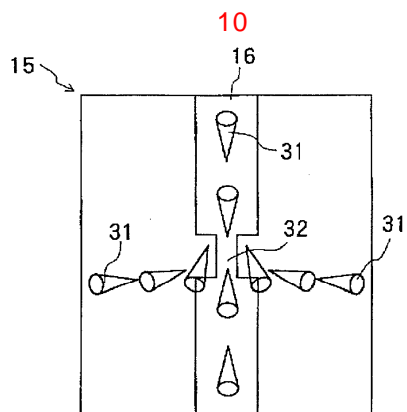
(57)

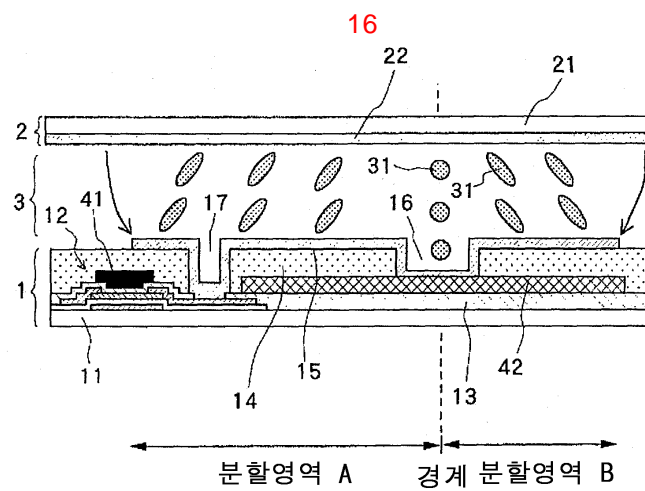
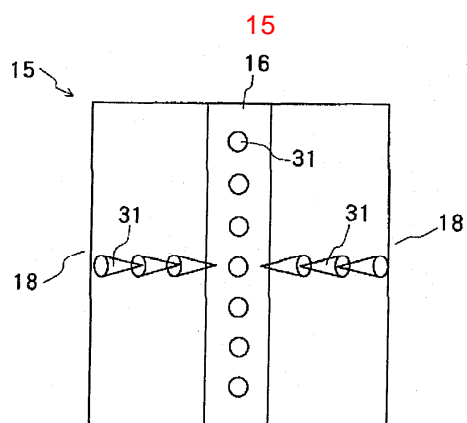
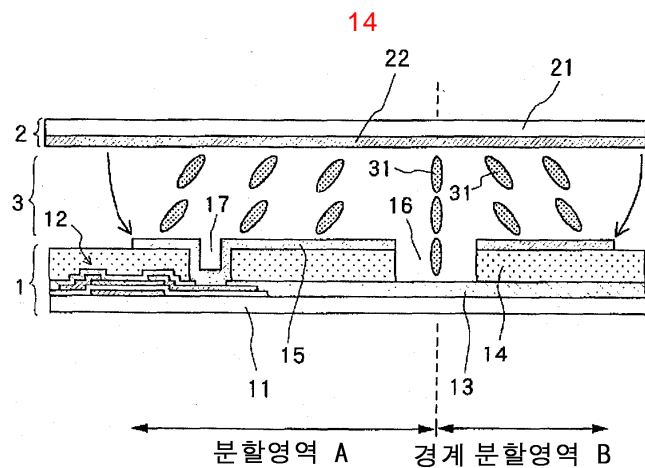
- 2 10. , , .
- 2 11. , .
- 2 12. , , .
- 2 13. , 1
- 가 14. , .
- 2 15. , .
- 2 16. 60 ° , 90 ° .
- 1 17. ,
; | 2 (negative) , (positive)
- 2 18. ,
; | 2 ,
- 1 19. (negative dielectric constant anisotropy)
가
- 2 20. , ,
- 18 21. 1/4 , 1/4
- 19 22. 1/4 , 1/4

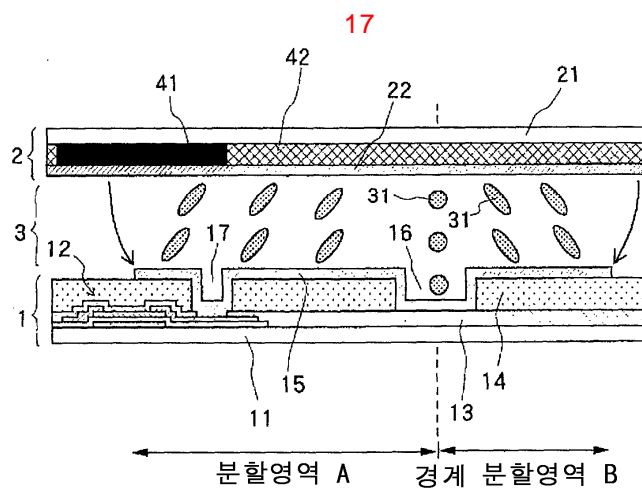












专利名称(译)	有源矩阵液晶显示器		
公开(公告)号	KR100451893B1	公开(公告)日	2004-10-08
申请号	KR1020000079352	申请日	2000-12-20
[标]申请(专利权)人(译)	NEC液晶技术株式会社		
申请(专利权)人(译)	日元号技术可否让这个夏		
当前申请(专利权)人(译)	日元号技术可否让这个夏		
[标]发明人	SAKAMOTO MICHIAKI 사카모토미치아키 YAMAMOTO YUJI 야마모토유지 OKAMOTO MAMORU 오카모토마모루 SUZUKI MASAYOSHI 스즈키마사요시 ISHII TOSHIYA 이시이도시아 SUZUKI TERUAKI 스즈키테루아키 MATSUYAMA HIROAKI 마쓰야마히로아키 KAWADA KIYOMI 가와다기요미 SUZUKI SEIJI 스즈키세이지 HIRAI YOSHIHIKO 히라이요시히코		
发明人	사카모토미치아키 야마모토유지 오카모토마모루 스즈키마사요시 이시이도시아 스즈키테루아키 마쓰야마히로아키 가와다기요미 스즈키세이지 히라이요시히코		
IPC分类号	G02F1/1333 G02F1/139 G02F1/1343 G02F1/1337 G02F1/133		
CPC分类号	G02F1/134336 G02F1/133707 G02F1/1393		
代理人(译)	JO , EUI JE		
优先权	1999361086 1999-12-20 JP		
其他公开文献	KR1020010062564A		
外部链接	Espacenet		

摘要(译)

VA (垂直排列) 型有源矩阵液晶显示器, 能够稳定分割区域 (对准区域) 之间的边界位置。液晶显示器包括 TFT (薄膜晶体管) 基板, 该基板包括为每个像素提供的像素电极和为每个像素电极提供的诸如 TFT 的驱动元件, 与 TFT 基板相对设置并包括相对电极的相对基板, 以及夹在 TFT 基板和相对基板之间的液晶层。每个像素电极具有形成在其中的凹槽形状的凹槽。像素电极优选地具有大致矩形的形状。设置凹槽使得它从像素电极的一对相对侧中的一个延伸到另一个, 以将像素电极分成两部分。

