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2003 - 0025206
2003 03 28

(21) 10 - 2002 - 0056873
(22) 2002 09 18

(30) JP - P - 2001 - 00285342 2001 09 19 (JP)

(71) 가
3190

(72) 가 18 - 1 - 14

가 5685 - 2 202
77 - 2

(74)

:

(54)

(13) 가 (11, 12) , (11, 12) , (EL1, EL2) , (EL1, EL2) (

3

1

2 1

3 2

4 3

5 3

6 4

,

5

7 6

8 6

11, 12 : 13 :

14, 16 : 15 :

COM1, COM2 : DM :

EL1 : EL2 :

PL1, PL2 : SW :

X : XD :

Y : YD :

OA , , ,
(TFT; Thin Film Transistor)

가

TFT

2

가
, (smetic)
tal) ,

(nematic) OCB , VAN , HAN ,
(Surface Stabilized Ferroelectric Liquid Crys

VAN

(TN)

, VAN

가

가

1

2

가

1

2

1

2

, 1

2

가

가

가

1 VAN 2 (11, 12) (11, 12)

(11) (Y)(Y1 Ym), (EL1) (EL1) (X)(X1 Xn),
 (Y) (Y) (X) (EL1) (SW),
 (YD) (XD) (XD) (13) (SW),
 (EL1) 2 (G1) 가 (14) (SW),
 (11) (YD) (XD) (Y) (X) (EL1)
 (SW) 2 (Y), (X), (SW),
 (YD) (YD) (G1) (X)

(12) (G2) (15), (EL1) (15)
 (EL2), (EL2) 가 (13)
 (12) (16) (15) (E)
 (EL1, EL2) (R), (G), (B) 3

(G1, G2) , , 가 , ,
 (11, 12) (13) (G1, G2) (13)
 (11, 12) (13) (13) (SP)
 (14, 16) 90° (PL1, PL2)
 (PL1, PL2) (11, 12) (GI, G2)

(EL1) (EL2) 3 (13) 가 (EL1)
 (EL2) (EL1) 4 3
 (CM1) (EL2) 5
 (CM2) (CM1)
 (細線)(BR) (CM2)
 가 (BR) (CM)
 I, CM2) 가 (13) 6 (DM)
 (DM) (CMI, CM2) (CM1, CM2) 가

(CMI, CM2)
(EL1, EL2) 60 μm (CM1, CM2) 2 μm, 3 μm

가 (13) 10 μm 2 μm 1.5 μm (11, 12)
M) 6 (D)

60 μm (CM1) (EL1) (EL1, EL2)
μm (CM2) (EL2) 16 2
μm, 40 μm, 50 μm, 60 μm 3 μm 10 μm, 20 μm, 30
80 (13) =17.3, n=0.286
(14, 16)

7 210:1 (EL1) (EL2) 2V 가
(CM1) (CM2)

8 100%, 80%, 60%,
40%, 20%, 0%가 가
22.5 가

(13) 가 (CM1) (CM2)
(DM) (DM) (EL1, EL2) (EL1, EL2) (EL1, EL2)
가 (EL1, EL2)

(14, 16) 가 (13) (11, 12)
가 (13) (14, 16) (1

1, 12) 0°

(SW) (11) (EL1) (YD), (XD) (1
2) (13) (EL2) (EL1)
(EL1) (EL2) 가 (EL2) (EL1)
(CM2) (EL2) (CM1)

가 ,
가 .

(57)

1.

(nematic)

1 2

, 1 2
가 1 2

, 1 2

2.

1 ,

1 2

1 2

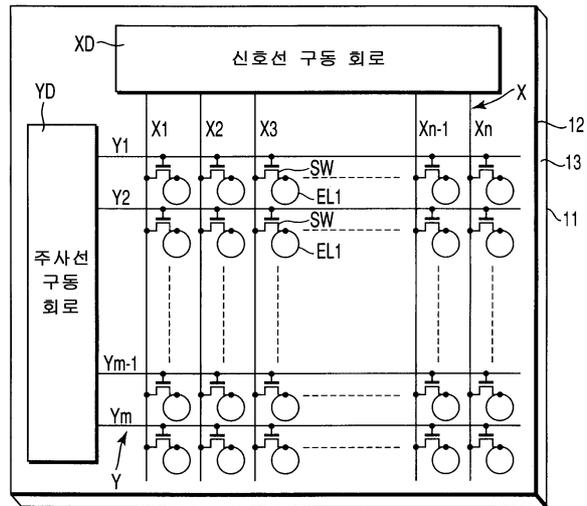
,

3.

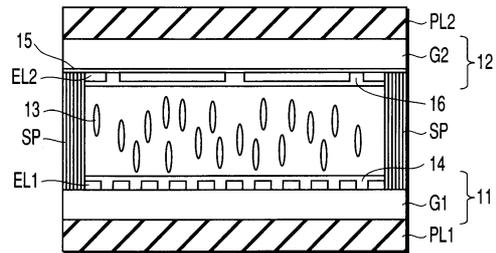
2 ,

1 2

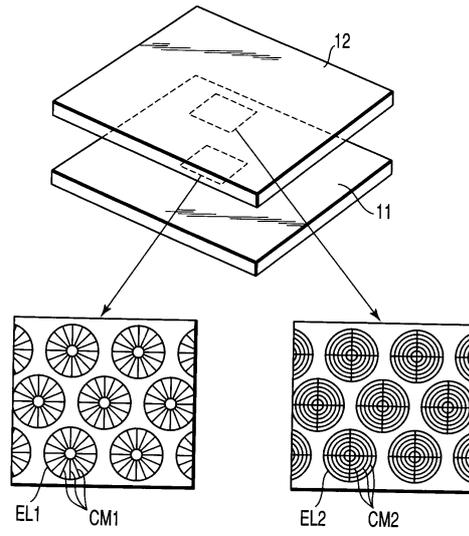
1



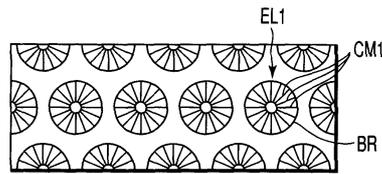
2



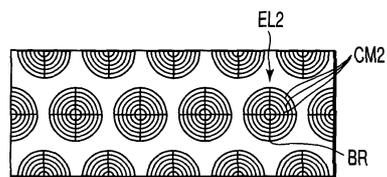
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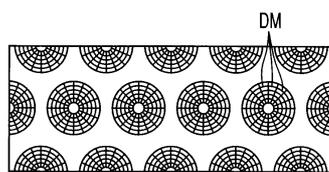
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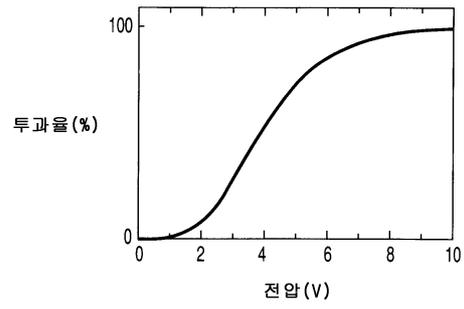
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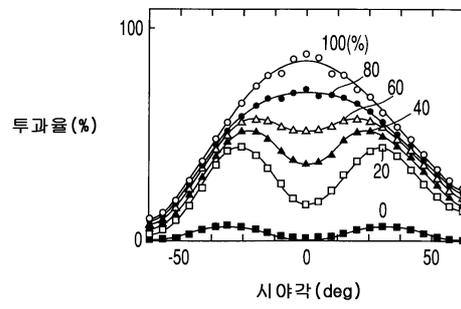
6



7



8



专利名称(译)	液晶显示元件		
公开(公告)号	KR1020030025206A	公开(公告)日	2003-03-28
申请号	KR1020020056873	申请日	2002-09-18
[标]申请(专利权)人(译)	国立大学法人富山大学		
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发明人	오카다히로유키 오노히로시 온나가와히로요시		
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摘要(译)

液晶显示装置包括圆形电极 (EL1, EL2), 其授权电场, 其中包括向列晶体材料和该向列晶体材料的液晶层的液晶分子分别形成在大致光学透过电极基板上。(11,12), s对齐并插入和插入基板 (11,12) 并控制液晶分子在液晶层 (13) 中的排列。特别地, 圆形电极 (EL1, EL2) 将液晶层 (13) 分成多个区域中的该电场, 并使液晶分子的倾斜方向不同, 并且径向和同心的相反的光阻挡电极线是包含在这些多元的域互惠之间。

