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10-0426196
2004 03 25

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(22) 2001 08 29

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10-2002-0018087
2002 03 07

(30) JP-P-2000-00260345 2000 08 30 (JP)

(73) 가 가 가 22 22

(72) 1-10-504

500-1

3-24

314-2 205

2613-1 309

(74)

:

(54)

1 2 , , 3가 , 가 , TFT
(crossed Nicol state) (spherical spacers)

1 (10) .
 2 (20) .
 3 (relative luminosity) .
 4 (40) .
 5 .
 6a 6c (106) (transfer-based placement method)

< >

- 10, 20, 40 :
- 100a, 100b, 200a, 200b, 400a, 400b :
- 101, 201, 401, 501 :
- 102, 202, 402 :
- 103a, 103b, 203a, 203b, 403a, 403b :
- 104a, 104b, 204a, 204b, 404a, 404b :
- 105a, 105b, 205a, 205b, 405a, 405b :
- 106, 206, 406 :
- 407a, 407b, 408a, 408b, 409a, 409b, 507a, 507b, 508a, 508b, 509a, 509b :

(visual angle characteristics)

()

15241 (1990) , JP-A 4-204417 (1992) JP-A 2-
 JP-A 2-15241

position), (sputtering) (vapor-de
 JP-A 4-204417 (conductive columns)

가 ,

JP-A 2-15241 JP-A 4-204417

JP-A 2-15241
 가

JP-A 4-204417

가 , 가 가

velength-dependent property) , 가 (wa
 (bluish tint)

1 2

; 가
(refractive index anisotropy)

가 ,

가 1 2 ;

1 2

;

가

가

가 1 2 ;

1 2

1 2

;

가

2

2
가

가

(visibility)

가

가

3가

가

가

가

3가

가

가

(photopic conditoin of vision)
(scotopic conditoin of vision)

가

가

가

가 , 가 , 가 .

1 TFT((10) 1

, ECB(Electrically Controlled Birefringence) , O
 CB(Optically self-Compensated Birefringence) ,
 가 TFT (semi-rel
 ection)

(10) 가 1 2 (100a 100b); (101); 1 (100a)
 가 (102); (101) 가 (103a 103b); (104a 104b); (105a 105b); TFT ; (
) (101) (100a 100b) (106)

가 (planarizing film), (105a 105b) 가
 (102) 3가 : , , (106)

3 500nm

가 3가 , , ,

가

가 550 nm

가 , , 3

(1)
 (100a 100b)
 (100a) 3 RGB(, ,) (102)가
 (delta arrangement) 가
 (102) ITO(Indium Tin Oxide)
 (100b)

가 TFT, R, G, B

(102) R, G, B 3

2 (104a 104b) (rub
 bing treatment)가

(100b) (106) 가 , 가
 가 , 가 가 . (Coulomb force) (dint) ,
 (106) (106) 100μm 30 40μm 80% 가 .
 , (106a) 가 , 10μm 80% ,
 (106) 80% ,
 (106)가 (106) 가 (106)가
 가 , (106)가 (106)가
 가 , (106) 가 (air-blowing)
 (106) , 6a, 6b 6c (transfer-
 based method) (106) (601; transfer plate) (6a) (102) (601)
 (projection) 가 (100a) (6b) (100a) (601) (100a) (601)
 (106) (106) (601) (100a) (106)가 (6c) .
 (106) (106) (601) (601) (106)가 ,
 가 (106) (adhesion properties) , 2
 (106) , 2
 가 가 (105a 105b) ,
 (10)가 10% .
 (2) , (206) 가 2 (20) (20)
) (10) 1 2 (200a, 200b); (201); 1 (200a)
 (204a, 204b); (202); (201) 가 (203a, 203b);
 (201) (200a, 200b) (205a, 205b); TFT ; ()
 (20) 1 (206)
 , 가 (tint)가 -
 4 (20)가 .
 (40) 가 1 2 (400a, 400b);
 1 2 (400a, 400b) (401);
 (402); 1 2 (400a, 400b) (401) 가
 1 2 (400a, 400b) 1 2 (403a 403b);
 (404a 404b); 1 2 (400a, 400b)
 1 2 (405a 405b); (405a 405b)
 (407a 407b)(가
); (407a 407b) , , 가
 9a 408b/409b) (408a/40
 (407a, 407b, 408a, 408b, 409a, 409b) ,
 (401) (400a 400b) (406)

(401) , (407a 409b) 가 1 2 () (400a, 400b)

(40) , (402) , 3가 (406)

(3) , 가

1 2 4 5 (5 (positive optically uniaxial cha
racteristics) 가) (ellipsoid) (505a 505b)

5 (501) , 1 (501a) 2 (501b)

1a) 2 (501b) 5 (; director) 180 , 1 (501a) 2 (501b)

가 , 1 (501a) , 2 (501b)

180 1 2 (two-division orientation)

가 가 2-

(evenness) 가

2 (507a 507b) 가 (遲相軸)(retardation axis)(
(normally black characteristics))가 2

(507a 507b) 가 ()

(508a 508b) (501) (507a 507b) ()

(508a 508b) 가 () 가

(508a 508b) (508a 508b) 가 , 가

(509a 509b) (501) (507a 507b) ()

가 , 가 가 (509a 509b) (509a 509b) 45 (509a 509b)

가 , 가 가 (509a 509b) 가 , 2 가 가

(40) 가

(406) , 가

가 , 가 , 가

가 10%

가 2

가

가 ,

가 ,

가

가

가

가

가

가

가

(57)

1.

2.

1 2 ;

;

1 2 ;

1 2

3 ,

가 2

1 2

180°

1

(遲相軸)

가

1

2

1

3.

2

2

3

4.

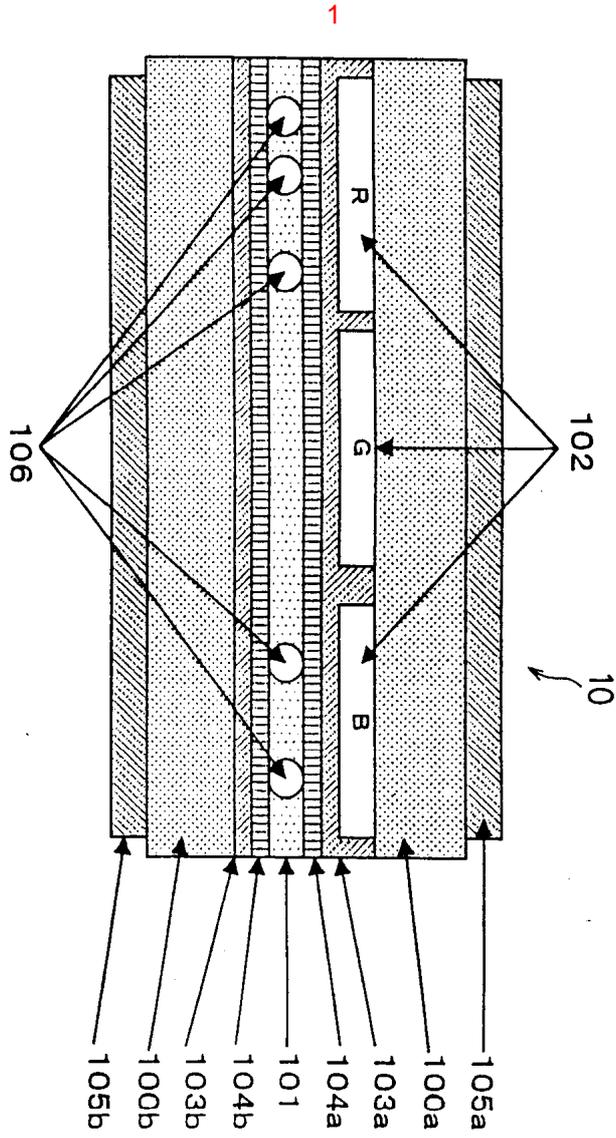
5.

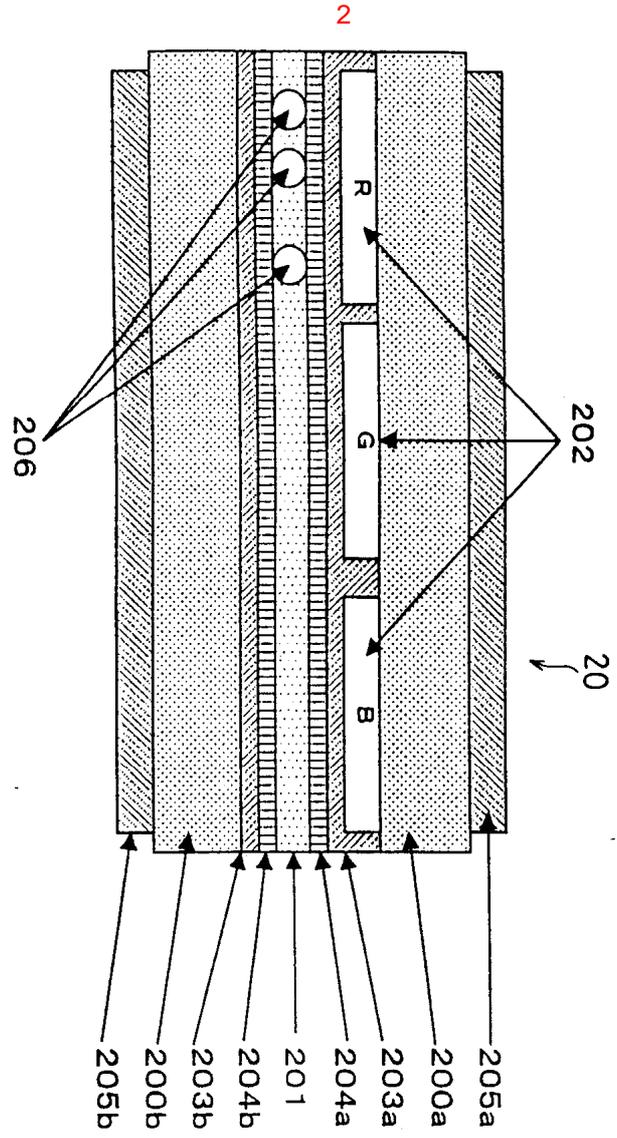
6.

7.

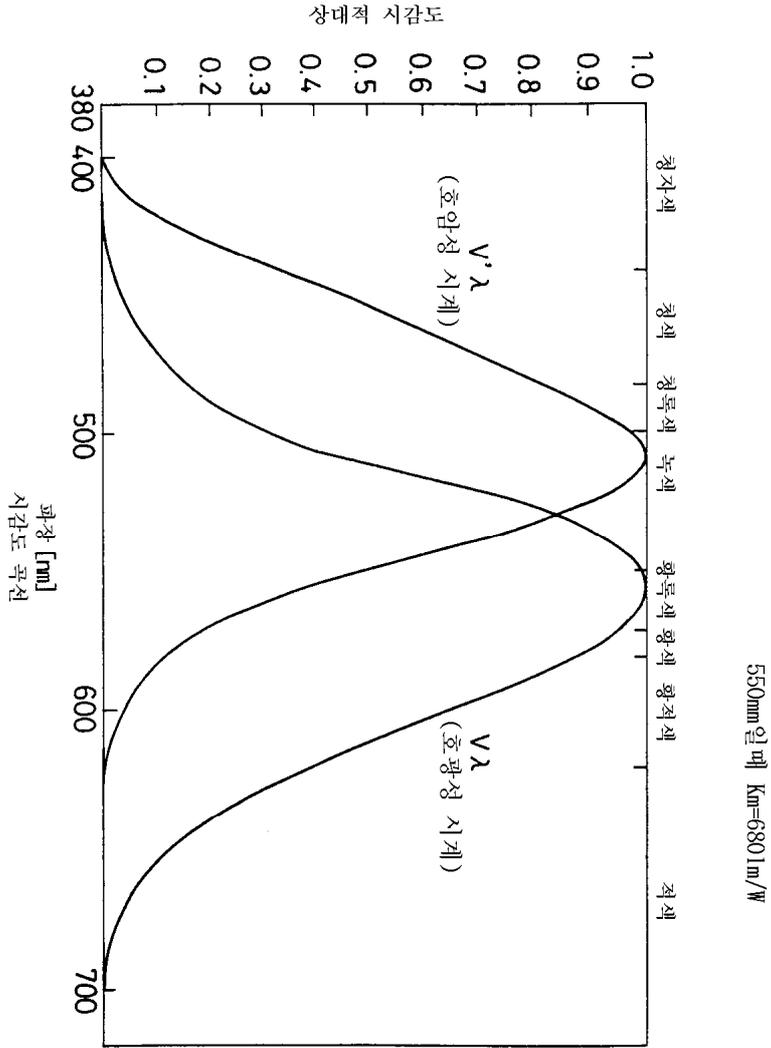
8.

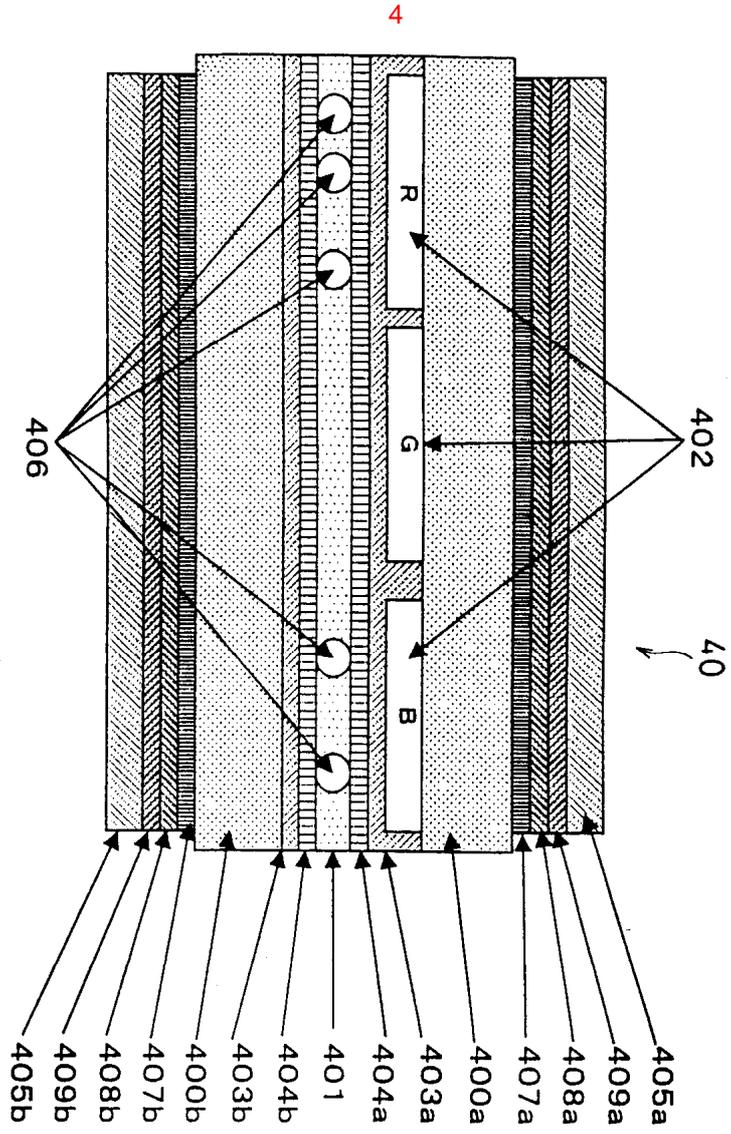
9.



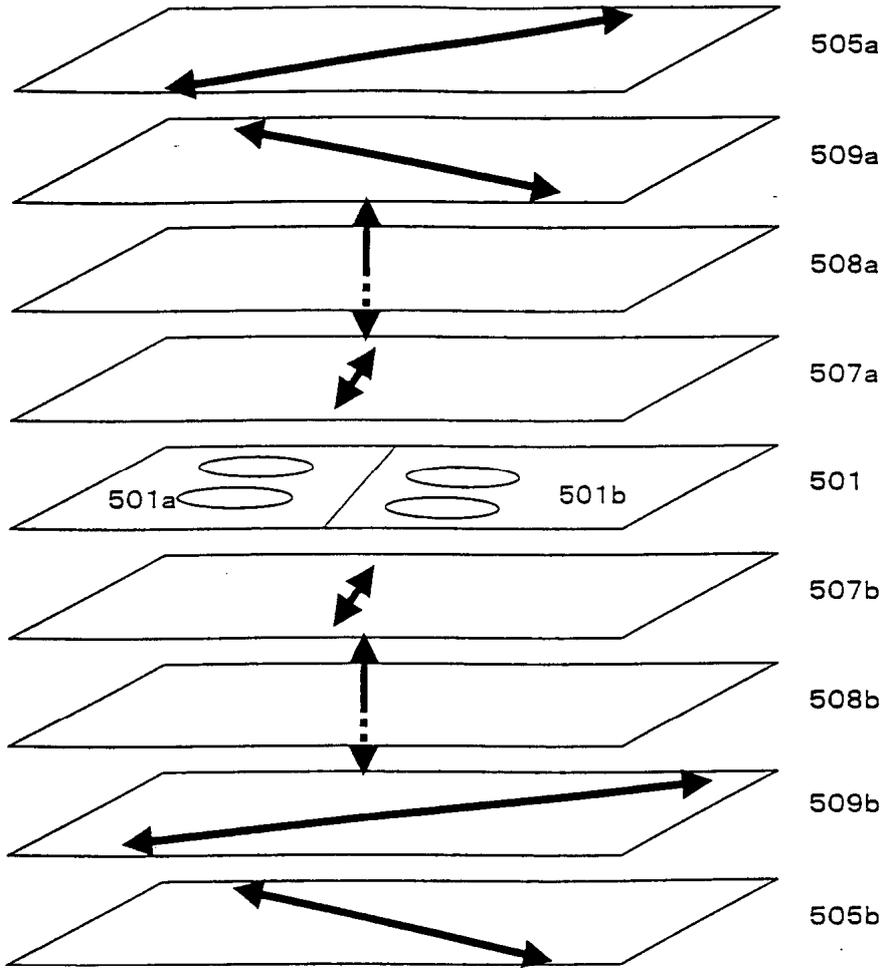


3

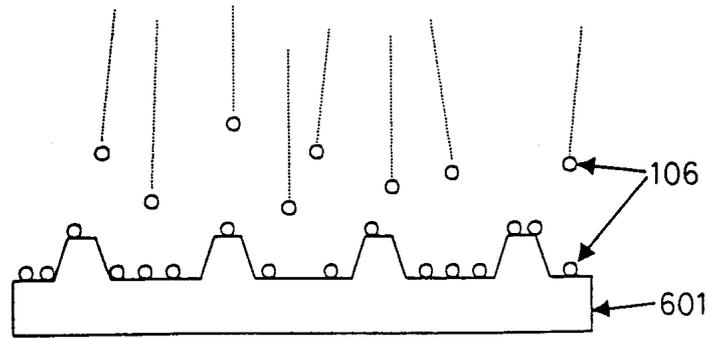




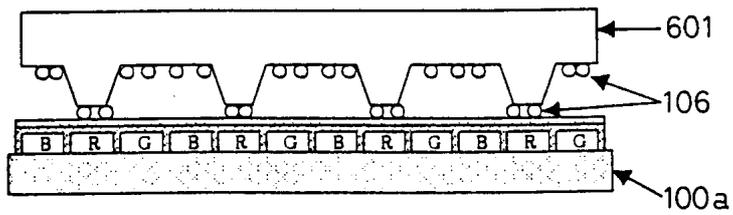
5

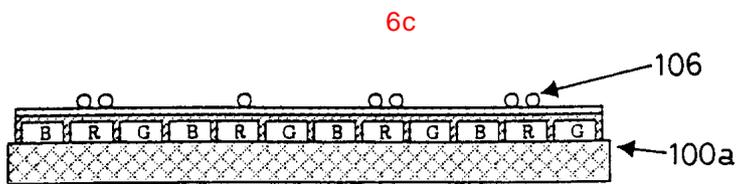


6a



6b





专利名称(译)	液晶显示器		
公开(公告)号	KR100426196B1	公开(公告)日	2004-04-06
申请号	KR1020010052351	申请日	2001-08-29
[标]申请(专利权)人(译)	夏普株式会社		
申请(专利权)人(译)	夏普株式会社		
当前申请(专利权)人(译)	夏普株式会社		
[标]发明人	HIRATA MITSUAKI 히라다미쯔아끼 SHIMOSHIKIRYOH FUMIKAZU 시모시끼료 후미까쯔 MIZUSHIMA SHIGEAKI 미즈시마시게아끼 MORIMOTO MITSUAKI 모리모토미쯔아끼 Ikeguchi TAZO 이께구찌다조		
发明人	히라다미쯔아끼 시모시끼료 후미까쯔 미즈시마시게아끼 모리모토미쯔아끼 이께구찌다조		
IPC分类号	G02F1/1337 G09F9/30 G02F1/1339 G02F1/1335		
CPC分类号	G02F2001/133757 G02F1/13392 G02F1/133514		
代理人(译)	CHANG, SOO KIL		
优先权	2000260345 2000-08-30 JP		
其他公开文献	KR1020020018087A		
外部链接	Espacenet		

摘要(译)

本发明的一个目的是提供一种具有优异显示质量和高度精确等间隔的基板的高对比度液晶显示器件。第一和第二基板可以布置在具有三种颜色的红色，绿色和蓝色的滤色器中，用于向液晶层施加电压的电极，用于对准液晶的取向层和交叉的尼科尔状态一对偏振片，TFT元件和布线（未示出）。将基板粘合在一起，并将球形间隔物夹在其间以形成液晶层。然后，球形间隔物选择性地布置在红色和蓝色滤色器区域中。1 指数方面 液晶显示器，液晶层，基板，滤色器，电极，取向膜层，偏振器，球形间隔物

