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(JP)

(71)

가 가

1-1-2

(72)

가

1 1 2

가 가

1 1 2

가 가

1 1 2

가 가

(74)

:

(54)

(X)

,

$\pm 60^\circ$

2

(Y)

1

,

,

가

.

2 (Y)

2. 1 (X)
1 . ,3. 1 (X)
1 . , 가4. 1 (X)
1 . , 가5. 2 (Y)
, ((視認)) , ,
1 4 .6. 2 (Y)
(a) , (b) , (A) 1 5 2
.7. (a) 가 , (a1)
, $\lambda / 8$ (b) ((b1)) 가 , 6 30 °
.8. (a) 가 ,
(a2) , $\lambda / 4$ (b) ((b1)) 가 , 30 °
,(b1) , (a2) , 가 $\lambda / 4$ (b2) ,

(b2) , (a2) , 45 ° (- 45 °) ± 5 ° ,

(b2) , (a2) , - 45 ° (+ 45 °) ± 5 ° ,

(b2) (b2) , 가
6 .9. (a) 가 ,
(a2) ,(b) 가 $\lambda / 4$, Nz 가 2 2 (b3) 2 ,(b3) , (a2) , 45 ° (- 45 °) ± 5 °
,(b3) , (a2) , - 45 ° (+ 45 °) ± 5 °
,(b3) (b3) , 가
6 .10. (a) 가 ,
(a2) ,(b) 가 $\lambda / 2$, Nz 가 1.5 2 (b4) 1 ,

(a2) , $45^{\circ} (-45^{\circ}) \pm 5^{\circ}$,

(a2) , $-45^{\circ} (+45^{\circ}) \pm 5^{\circ}$

2 (a2) , 6

11. 2 (Y) ,
1 5 .

12. 가, 11 .

13. 가, 11 .

14. 가
11 .

15. 가,
11 .

16. 1 15 ,

()

, 1 (X) , 2 $\pm 60^{\circ}$ 1 (X)
(Y)

(A) 2 (Y) (a) (b)
, 11, 12 (X) (L) (BLS) 2 (Y)
1 (X) 11 1 (X) 12 (L) 1 (X) (L) 11
(BLS) 1 (X) , 2 (Y) 가 2
(Y) 2 , 가 1 ,
(LC) 13, 14 , 11, 12
(PL) 2 (Y) 가 (LC) 2 (Y) 가 (LC)
13, 14 2

1 , $\pm 50^{\circ}$

, 1 (X) 1 $\pm 60^{\circ}$, $\pm 50^{\circ}$
60 70° 21 2 (Y) 가,

(Y) , 21 , 15 2
(LC), (L), (PL) 2 , ELDIM
Ez-Contrast , 21 () , 가

25	2	2	(Y)	.
26	2	, 1	(X)	, 2 (Y)
27	3	2	(Y)	.
28	3	, 1	(X)	, 2 (Y)
29	4	2	(Y)	.
30	4	, 1	(X)	, 2 (Y)

(L) 1 (X) . (L) (X) (L)

, (L) . 1 (X) (L)

1 (X) 가 1

(X) 가 1

1 (X) , $\pm 60^\circ$

, 1 (X) 가

1 (X) , $\pm 60^\circ$

(, 2 (Y) 1 (X) (X))

가 $\pm 60^\circ$, $\pm 60^\circ$

, 2 (Y) ()

2 (Y) () (TFT-)

2 (Y) 가 2 60 70° (a)

(b) (A)

가

(A) . (A) ,
 1 (A) (a) (a1) (a1), (b1), 1 (a1)
 가
 1) 3) .
 1) (a1) ,
 2) 가 0 (zero), (b1)
 3) .
 (b1) , C ()
 (b1) C () 가 0 가 , ()
 C , 2 가
 , C
 (a1) , 가 /
 가 (a1)) (, 1 (b1)
 (a1) (b1) ,
 /
 , () , (r) 2 () , ()
 , () . () -1 -2 가 .
 . () -1 -2
 1 , (a) (a1)
 (1) (r1) (a1) , (r3) (
 r2) .
 (2) (r3) (b1) .
 (3) (r4) (a1) .
 (4) (r5) .
 (5) , (r6) (a1) (r8)
 (r7) ,
 (6) (r8) (b1) (r8) (b1) 1/2 ,
 (7) (r9) .

- (8) (r9) (a1) W.A. Shurcliff, Polarized Light : Production and Use, (Harvard University Press, Cambridge, Mass., 1966)).
- (r9) (r10)
- (9) (r10) (b1)
- (10) (r11)
- (11) (r8) (r11) (a1)
- (12) (r2, r7, r12) (A)
- (13) (r5) $\lambda / 4$
- (a1)
- 가 / 가 가
- (b1) 1/2
- (a1 : (b1) 1/8 가 가
- (a) 가 C (a2) (b) C (b1))
- 가 C
- C $\lambda / 4$ (b2) (a2) $\lambda / 4$ (b2) 45 ° -45 ° (a2) , C
- 3 (a2) , $\lambda / 4$ (b2)
- 4 (a) (a2) 4 (A)
- () (a2), $\lambda / 4$ (b2), (b1), $\lambda / 4$ (b2),
- (a2) 가
- 5 4 , $\lambda / 4$ (b2) C : (a2) (b1)
- set1, set2 , $\lambda / 4$ (b2) 45 ° (-45 °) ± 5 °
- et1, set2 (a2) $\lambda / 4$ (b2) 45 ° (-45 °) , s
- 4, 5
- (1) (r14) (a2)
- (2) (a2) , (r15) (r16)
- (3) (r15) $\lambda / 4$ (b2) (r17)

- (4) (r17) (b1) .
- (5) (r18) $\lambda/4$ (b2) (r19) .
- (6) (r19) (a2) .
- (7) (r20) .
- (8) , (r21) (a2) .
- (9) (a2) , (r22) (r23) .
- (10) (r22) $\lambda/4$ (b2) (r24) .
- (11) (b1) (r24) $1/2$.
- (12) (r25) $\lambda/4$ (b2) (r26) .
- (13) (r26) (a2) (r27) .
- (14) (r27) $\lambda/4$ (b2) (r28) .
- (15) (b1) (r28) $1/2$.
- (16) (r29) $\lambda/4$ (b2) (r30) .
- (17) (r30) (a2) .
- (18) (r16, r23, r31) .
- 45 ° , $\lambda/4$ (b2) (a2) $\lambda/4$ (b2) 가 (a2)
 , 가 45 ° 가 가 .
- 가 . ± 5 가 가 .
- (a2) , (a1) / 가 가 .
- (a2) (a2) (b1) (30 °)
 (a1) , $1/4$.
- 2 (b1) (a) 가 (a2) , 2 $\lambda/4$ (b2) C :
) , Nz 가 2 (b3) 2 가 $\lambda/2$ (b3)
- 6 , (a) (a2) , 2 (b3)
 (b3), 2 (A) , () , (a2), 2
 (a2) 가 .
- 7 , 6 (a2)
 2 (b3) (b1) 45 ° (- 45 °) ± 5 ° set1, set2

- (a2) , 2 (b3)
- (a2) 2 (b3) 45 ° (- 45 °)
- , set1, set2
- 6, 7 ,
- (1) (r32) , (a2)
- (2) (a2) , (r33) , (r34)
- (3) (r33) , 가 1/4 2 (b3) 2 0 , 2 2 (b3) (r35)
- (4) (r35) (a2)
- (5) (r36) ,
- (6) , (r37) , (a2)
- (7) (a2) , (r38) , (r39)
- (8) (r38) 2 2 (b3) 2 2 (b3) , 1/4 (b3) (r40)
- , Nz 2 90 °
- (9) (r40) , (a2)
- (10) (a2) (r40) (r41)
- (11) 90 ° (r41) 2 2 (b3) , (8) (r42)
- (12) (r42) (a2)
- (13) (r34, r39, r43)
- 6, 7 (A) , 가 1/4 , 2 , Nz 2 2 : (b3) 2 (b1) 3 가 , (b2) C , (A) 가 ,
-) 45 ° , (b3) (a2) (b3) 가 (a2) 45 ° 가 , 가 가 , 가 ± 5 ° 가 (a2) , (a1) , 가 가

, (a) 가 (a2) (b) 가 $\lambda/2$,
 2 가 $\lambda/2$ 2 (b4) , Nz 1.5 (b4) .

8 , (a) (a2) , 2 (b4)
 (b4), 8 , (A) () , (a2), 2
 (a2) 가 .

9 , 8 . (a2)
 (a2) (b4) . 2 (b4) , (a2)
 $45^\circ (-45^\circ) \pm 5^\circ$.

8, 9 , .

(1) (r47) , (a2) .

(2) (a2) , (r48) , (r49) .

(3) (r48) , 가 $1/2$ 2 (b4) , (r50)
 90° .

(4) (r50) (a2) .

(5) (r51) , .

(6) , (r52) , (a2) .

(7) (a2) , (r53) , (r54) .

(8) (r53) 2 (b4) . 2 (b4) 가 $1/2$,
 Nz 2 (r55) . (r53)

(9) (r55) (a2) , (r56) .

(10) (r56) (b4) .

(11) (r57) (a2) (r58) .

(12) (r49, r54, r58) .

8, 9 (A) , 가 $1/4$, Nz 1.5 2 :
 (b4) 1 . 4, 5 2 $\lambda/4$ (b2) C :
 (b1) 3 가 , 6, 7 2 .

) 45° , (b4) (a2) (b4) 가 (a2)
 , 가 45° 가 .

가 . $\pm 5^\circ$ 가 가 .

(a2) , (a1) / , 가 가

(A) ,²
30 °
(b)
,
(A)

$$\left(\frac{1}{S_3}\right)^2 = \left(\frac{1}{S_1}\right)^2 + \left(\frac{1}{S_2}\right)^2 - \frac{2 \cos \alpha}{S_1 \times S_2}$$

1, S1: 1, S2: 2, S3: , α : 1 2 가 .

가 (V: visibility) , (I) : $V = (I_{max} - I_{min}) / (I_{max} + I_{min})$,
 3 가 , 가 , 가 . ,

(a))

550nm $\pm$ 10nm 가 550nm 가 , (a) .

3 60 ° 100nm
710nm 가 610nm

(a) , 가

$$(\quad \quad \quad (a1))$$

(a1) $\lambda = np$, (n 가 , p). (a1)

(a1) 가 $\lambda / 2$ 가 (λ) 가 ,
(,) 가 , C

(a1)

SiO₂ 가 가

가 가 (A)

가 N- 가

(a2))
(a2) , 2 2 2 2
/ 2 2 2
가 JSR
1

((b))

가 , (a1) 30 ° (a2) λ / 8 (b1) , .

가 λ / 2 , 60 ° 가 λ (a1) C

가 λ / 2 , C 30 °

가 λ / 8 30 °

(A) 30 °

20 ° TN TN

30 ° , TN

(b1) 가 (380nm 780nm)

1

2

C 가 (380nm 780nm) , 가

C , 가

350nm

C , 가

()

1 C , 가 1

6-82777

2 C , 2

가

(a2) 30 ° (b1) , 가 (b1)

λ / 4 λ / 4 (b2)

λ / 4 (b2) (a2) 3, 4, 5 , λ / 4

(b2)

λ / 4 (b2) λ / 4 . λ / 4

2

가 $\lambda/4$, 550nm $\lambda/4$
 $1/2$, 1 2

가 $\lambda/4$, 가 $\lambda/2$ 2 (b3) 2
 2 (b3) Nz 가 2
 6, 7 , 2 (b3)
 (a2)

가 $\lambda/4$ 550nm $\lambda/4 \pm 40\text{nm}$, 가 $\pm 15\text{nm}$
 가

가 $\lambda/2$, (b4) , Nz 가 $\lambda/2$ 2 (b4) 1
 2 8, 9 , 1.5 (a2) 2
 (b4)

가 $\lambda/2$, 550nm $\lambda/2 \pm 40\text{nm}$, 가 $\pm 15\text{nm}$
 가

2 (b3), (b4) ,
 2 , 1 , 가 , 가

()

() 가
 , 가 ,

가

()

()

, 가

가
 2000-347006 , 2000-347007
 , TN . STN 가
 가
 , TN , 가 . STN STN
 , /
 / / 가 , 가
 (相性) /
 00-347006 , 2000-347007 , , 80% 90% 20
 / , 가
 ()
 , , 가 ,
 , 가 가 , ,
 , 가 , 가 ,
 () , 가 가
 , , 가
 ()
 ,
 (PL) (PL) (PL)
 (PL)
 (partially formalized)
 2 2 1
 - (poly-ene type) 가
 2 5 80 μm
 3 7 1

(blocking inhibitors)

(isotropy)

(AS)

(A) (side chain) 2001-343529 (WO01/37007) 가
N-

(work handling)

1 500 μm 1 300 μm , 5 200 μm

(coloring)

$$R_{th} = [(n_x + n_y)/2 - n_z] \times d$$

n_x n_y
)

 n_z

-90 nm +75 nm

(Rth)

-90 nm +75 nm

(Rth) -80 nm

+60 nm

, -70 nm

+45 nm

가

가

(hard coat layer)

(sticking)

(anti-glare)

가

cognition)

(rough surfacing treatment method)

(sandblasting)

(visual re

ked) 가

가

0.5 50 μm (cross-lin
가

(wettability), (cohesiveness)

(glass bead),

가 10 50 %

5 200 μm , 10 100 μm 가 1 500 μm

(salicylic acid),

UV

가

가 X , X Y , Z
 n_x, n_y, n_z , 550nm n_x, n_y, n_z (
 KOBRA21ADH) d (nm)
 $(n_x - n_y) \times d$: $(n_x - n_z) \times d$
 $(n_x - n_y) \times d$.

Nz : $Nz = (n_x - n_z) / (n_x - n_y)$

0) (MCPD-200

1

(2 (Y)

2 (Y) $\text{TiO}_2 / \text{SiO}_2$ 15 53 μm 50 μm

1

[1]

층	재료	막두께 (nm)
15	TiO ₂	92.1
14	SiO ₂	130.1
13	TiO ₂	68.3
12	SiO ₂	97.2
11	TiO ₂	63.2
10	SiO ₂	88.2
9	TiO ₂	152.1
8	SiO ₂	92.8
7	TiO ₂	70.7
6	SiO ₂	50.3
5	TiO ₂	148.6
4	SiO ₂	95.8
3	TiO ₂	65.5
2	SiO ₂	96.9
1	TiO ₂	65.3

()

(L) () 10.4 (3)

()

, 2 (Y) U4100 22

(2 (Y))

23 15 2 (Y)

23 70 ° 가 (Y) 가

가 ±60 °

(1 (X))

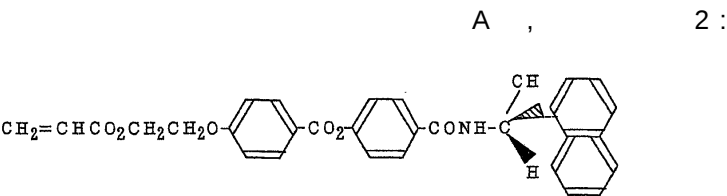
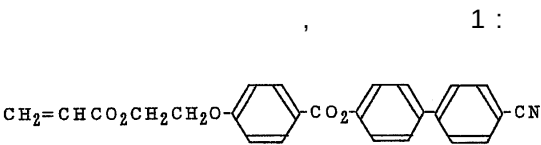
1 (X) , (頂角) 90 ° , 3M BEF (180μm, 50μm) 2

가 , (L) 2 1

가 (X) (BLS) , ±50 °

()

1 (X) (BLS) , 1 (Y) 16 24
16 (PL) (LC) 10.4 TFT
(Y) (PL) SEG1465DU (LC) (LC), (PL) . 2
24 1 . 1 (X) , ± 50 °
70 °
2
(2 (Y))
2 (Y) , 3
3 3
3
2 (Y) (PL)
3 435nm, 545nm, 610nm 440nm 490nm, 55
0 600nm, 615 700nm , 0834754 480nm, 570nm, 655nm
3



(B) , 2 ()
33 % , 60
0.5 % 가
(再沈) 2

[2]

(nm)	() A/ B	(nm)
480nm	9.81/1	440 ~ 490nm
570nm	12.5/1	550 ~ 600nm
665nm	14.8/1	615 ~ 700nm

10 %
가 1 μ m
, 140 , 15 가 0.1 μ m , 75 μ m
, , , ,
3 5 μ m
, (B) 2 가
3
(No.7, 25 μ m)
(35 μ m)
()
2 (Y) 25 21
, 15 , 2 (Y)
(1 (X))
1 , 1 (X) 2 (BLS)
()
1 (X) (BLS) , 2 (Y) , 16 26
16
26 1 . 1 (X) , $\pm 50^\circ$ 7
0°
3
(2 (Y))
2 (Y) 2 (a1)
(b1)
(a1) NIPOCS (PCF400)
가 0, (b1 : C BASF)
LC756 BASF LC242,
350nm , () = 11/88
350nm
(가 907, 1 %) (30 %)
BYK-361 () 0.01 % 가
: (75 μ m)
7 μ m , 90 2 , 130
, 80 , (10mW/ cm $\times$ 1
) 가 C (b1) C (b1) , 550nm
2nm, 30° 190nm (λ /8)

(a1) (b1) (a1) (, No.7, 25 μ m) (C (b1) (Y) 2 (Y) 3 2 (Y) , 가 (LC) (PL) 2 (Y) 1/4 (B) (PL) 45 ° (NO.7, 25 μ m) (1 (X)) 1 (X) 90 ° , 50 μ m) 3M BEF (180 μ m,) 2 가 1 (X) $\pm 55^\circ$ 가 (2 (Y)) 27 , 17 2 (Y) (A) 50 ° () 1 (X) (BLS) , 2 (Y) 18 BLDIM 28 Ez-Contra st 28 1 . 1 (X) 50 ° , 2 (Y) 4 (2 (Y)) 2 (b1) (Y) (b1) , 가 2 $\lambda/4$ (b2) (a2) , (a2) 3M DBEF C (b1) 3 C , 550 nm 0nm, 30 ° NRF ((b1) 8 μ m, 220nm ($\lambda/4$) 140nm) , 5 (a2) , 45 ° (-45 °) (NO.7, 25 μ m) (1 (X)) 1 (X) (BLS) (IBM PC ThinkPad 가) 1 . 1 (X) (BLS) , $\pm 50^\circ$ 2 (Y))

29 , 19 2 (Y) (A)
29 (L) (± 50 °) 19
()
1 (X) (BLS) , 2 (Y) , 20 30
20
30 1 ,
2 2 가
가
가 ,

- (57)
1. ± 60 ° 1 (X)
2 (Y)
2. 1 , 1 (X)
3. 1 , 1 (X) 가
4. 1 , 1 (X) 가
5. 1 4 , 2 (Y) (視認)
6. 1 5 , 2 (a) (Y) (b) (A)
7. 6 (a) (a1) ,

(b) , () 가 0 (zero) , 30 °
 $\lambda / 8$ (b1) .

8.

6 , (a) ,
 (a2) , ,
 (b) , () 가 0 , 30 °
 $\lambda / 4$ (b1) ,
 (b1) , (a2) 가 $\lambda / 4$ (b2) 가 ,
 (b2) , (a2) 45 ° (- 45 °) ± 5 ° ,
 (b2) , (a2) - 45 ° (+ 45 °) ± 5 ° ,
 (b2) (b2) 가 .

9.

6 , (a) ,
 (a2) , ,
 (b) , 가 $\lambda / 4$, Nz 가 2 2 (b3) 2 ,
 (b3) , (a2) 45 ° (- 45 °) ± 5 ° ,
 (b3) , (a2) - 45 ° (+ 45 °) ± 5 ° ,
 (b3) (b3) 가 .

10.

6 , (a) ,
 (a2) , ,
 (b) , 가 $\lambda / 2$, Nz 가 1.5 2 (b4) 1 ,
 , (a2) 45 ° (- 45 °) ± 5 ° ,
 , (a2) - 45 ° (+ 45 °) ± 5 ° ,
 2 (a2) .

11.

1 5 , 2 (Y)
 , .

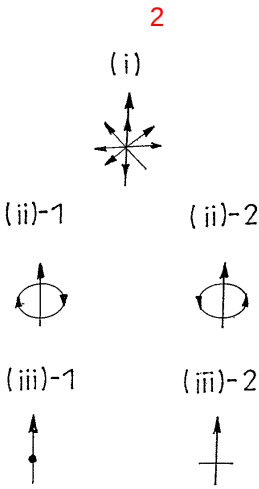
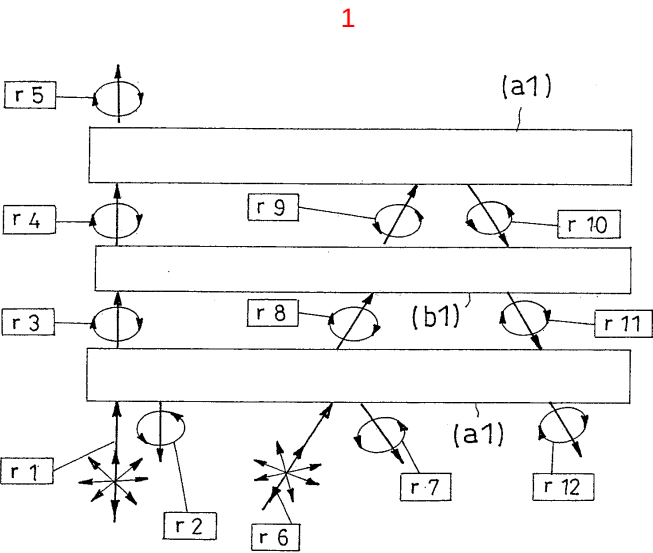
12.

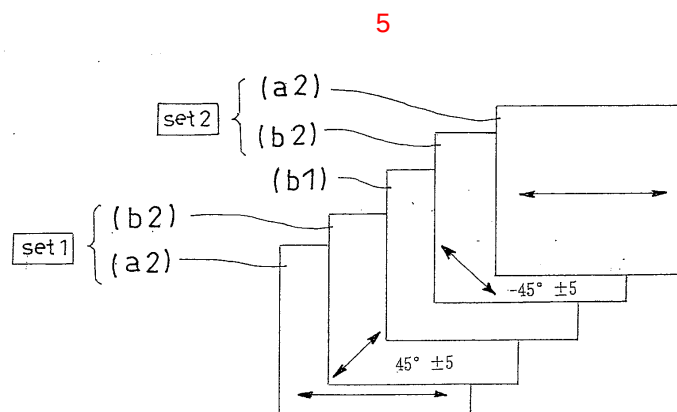
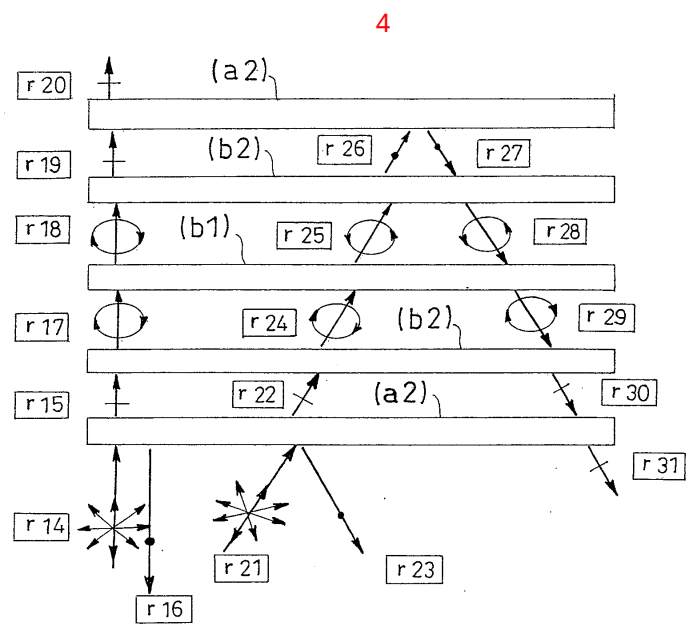
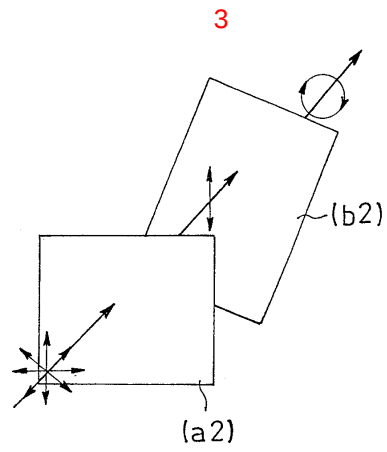
11 , , .

13.

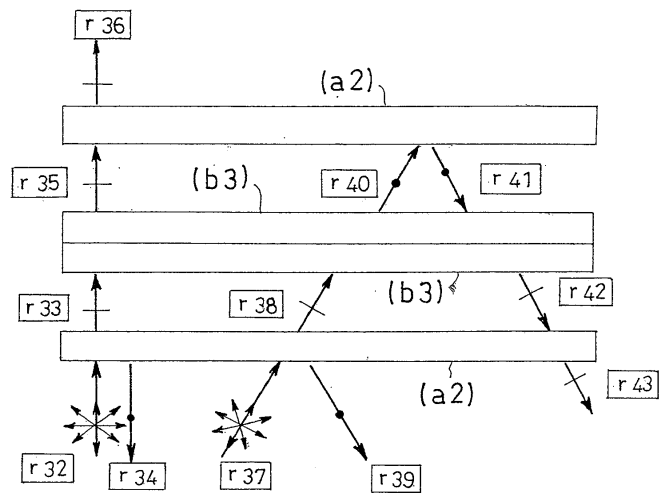
11 , , .

11 14.
11 15.
1 16. 15

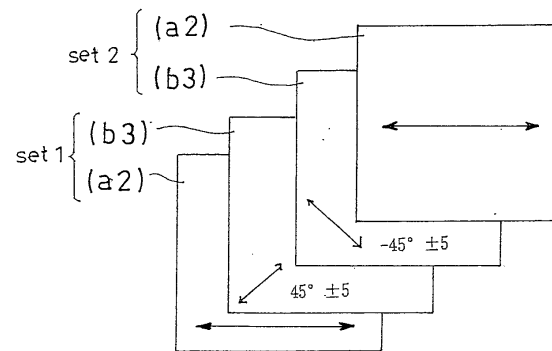




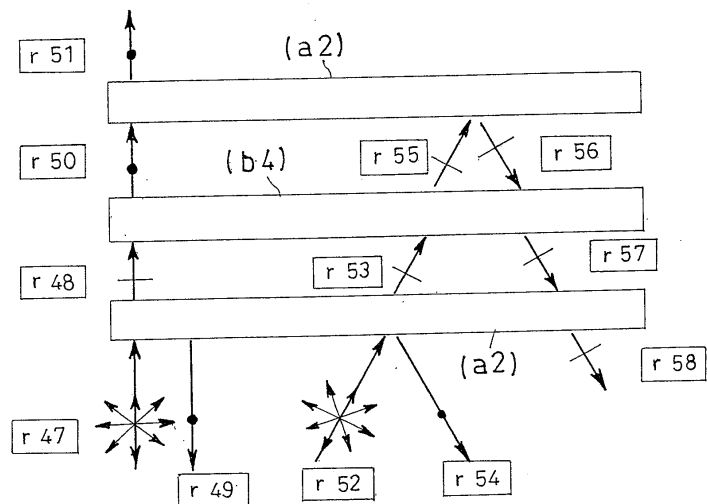
6

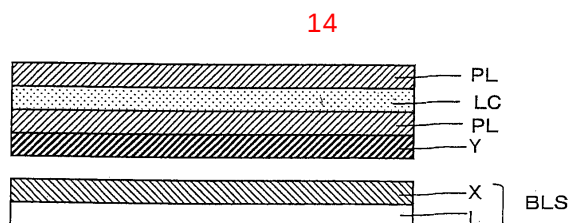
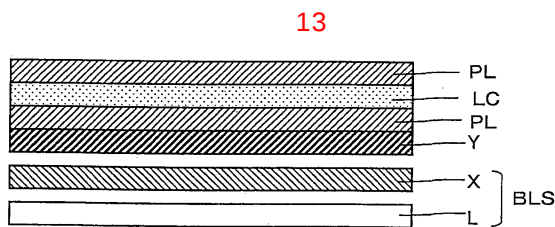
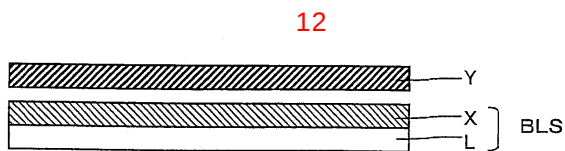
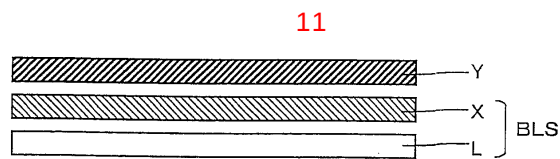
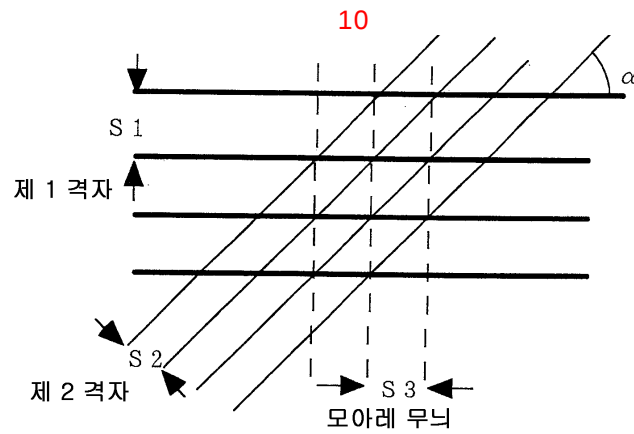
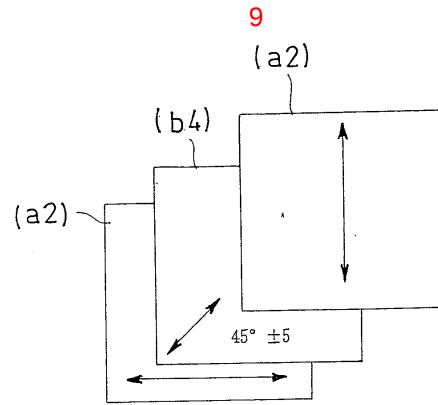


7

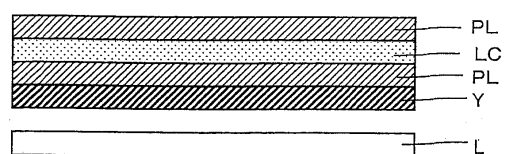


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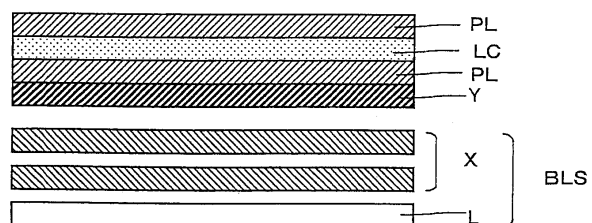




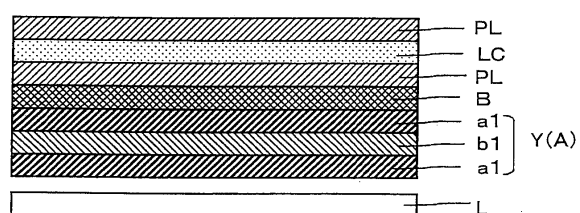
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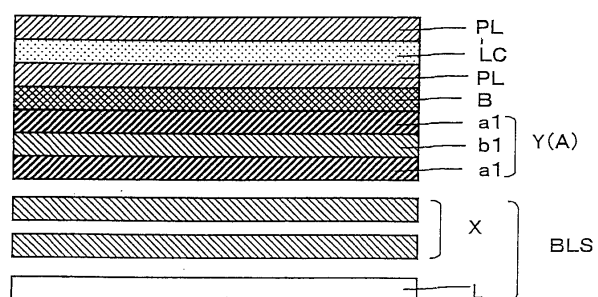
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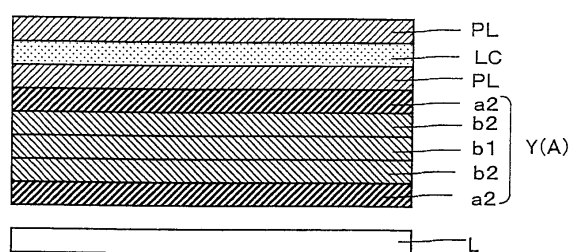
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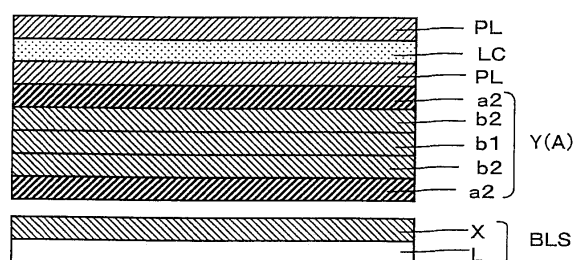
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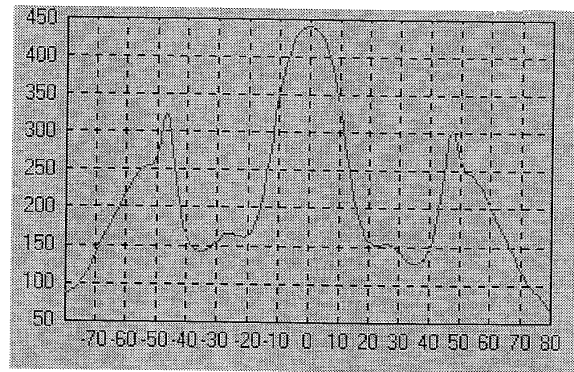
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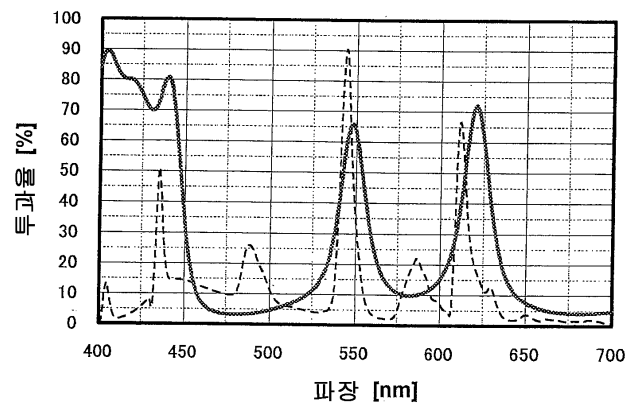
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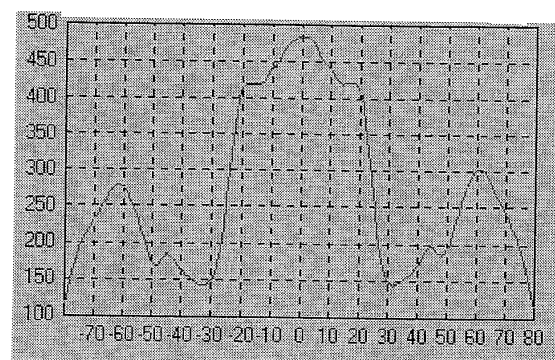


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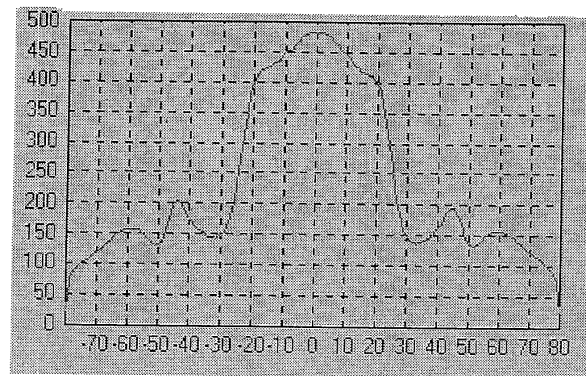


----- 백라이트의 발광스펙트럼
 ————— 간섭 필터(실험샘플)

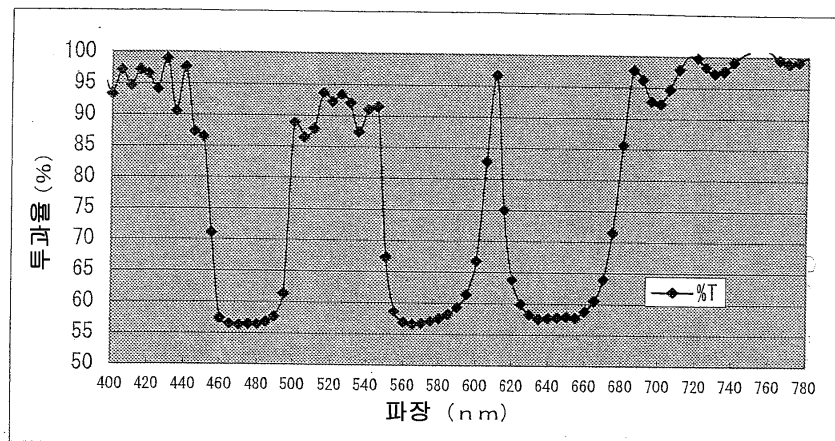
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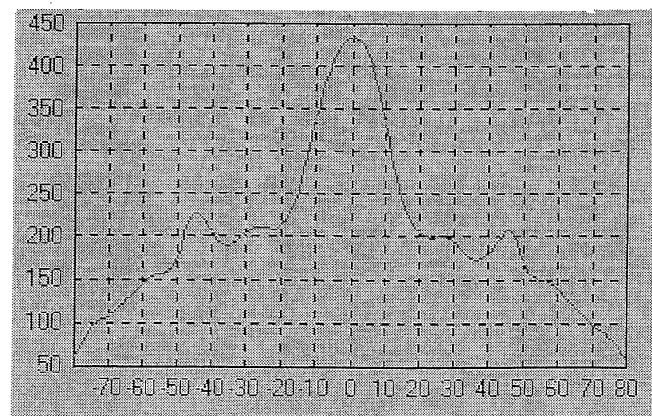
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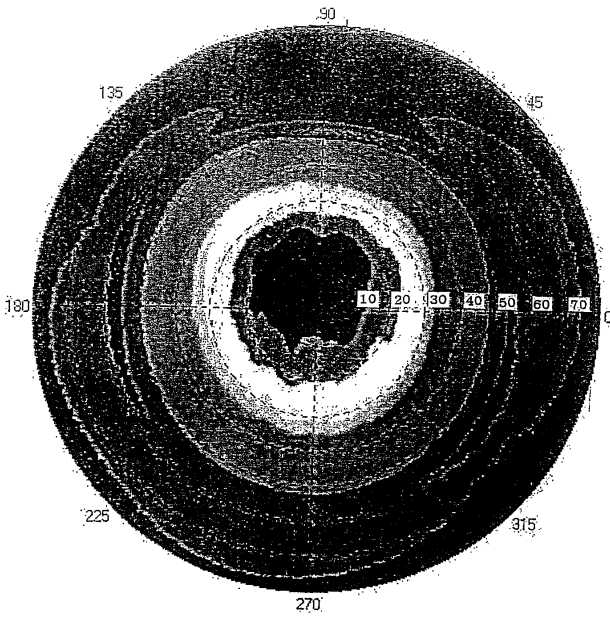
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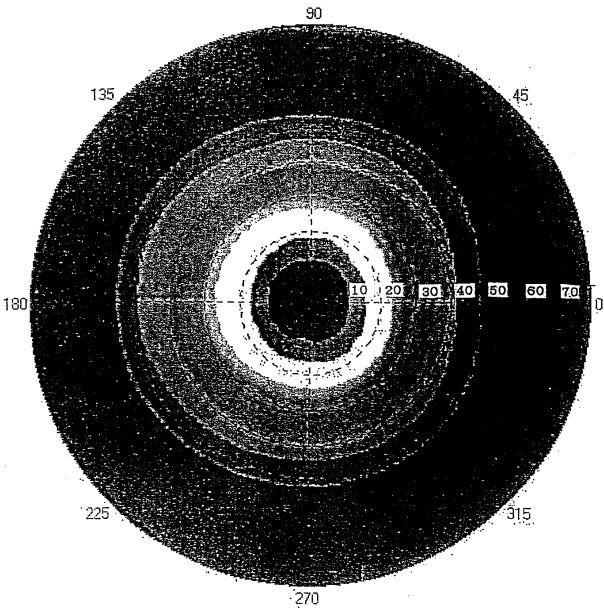
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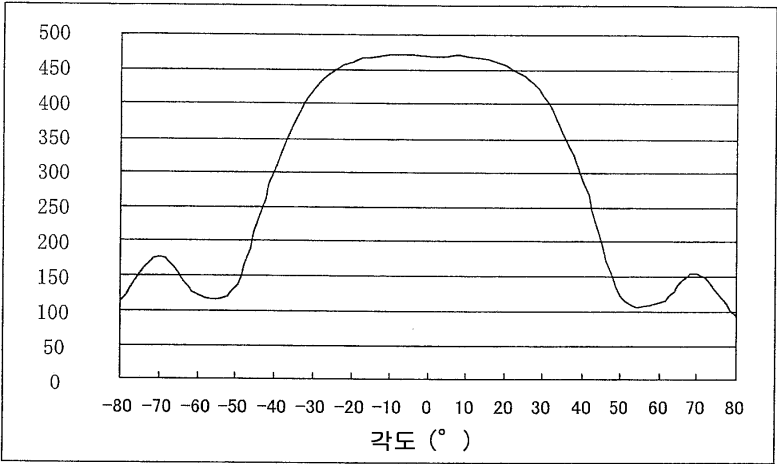
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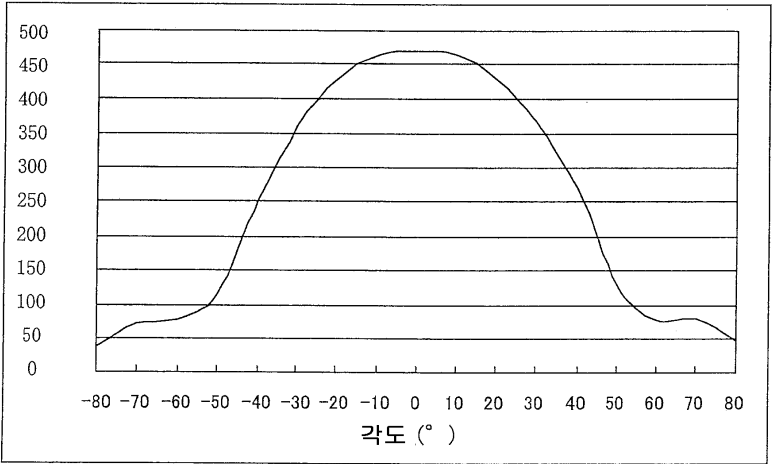
28



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专利名称(译)	冷凝系统和透射式液晶显示器		
公开(公告)号	KR1020040102166A	公开(公告)日	2004-12-03
申请号	KR1020047017087	申请日	2003-04-18
[标]申请(专利权)人(译)	日东电工株式会社		
申请(专利权)人(译)	日东电工 (株) 制		
当前申请(专利权)人(译)	日东电工 (株) 制		
[标]发明人	HARA KAZUTAKA 하라가즈타카 TAKAHASHI NAOKI 다카하시나오키 MIYATAKE MINORU 미야타케미노루		
发明人	하라가즈타카 다카하시나오키 미야타케미노루		
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代理人(译)	韩国专利公司		
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摘要(译)

其中本发明的聚光系统不具有背光系统的聚光膜和具有第一聚光部分 (X) 的图案, 该第一聚光部分 (X) 将来自光源和光源的出射光在正面上聚集在 $\pm 60^\circ$ 以内包含作为第二聚光元件 (Y)。根据这种聚光系统, 它有效地屏蔽了倾斜方向, 并且可以抑制不愉快的颜色。它具有良好的显示效果。此外, 可以降低成本。聚光系统和聚光元件。

