

**(19)**  
**(12)**

**(KR)**  
**(A)**

**(51) . Int. Cl.<sup>7</sup>**  
**G02B 5/30**

**(11)**  
**(43)**

**10-2004-0071313**  
**2004 08 11**

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(21)	10-2004-7010862		
(22)	2004 07 13		
	2004 07 13		
(86)	PCT/JP2003/000510	(87)	WO 2003/062875
(86)	2003 01 22	(87)	2003 07 31

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(30)	JP-P-2002-00014529	2002 01 23	(JP)
	JP-P-2002-00151337	2002 05 24	(JP)

(71)	가	가	1 - 1 - 2
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(72)	1	1	2	가	가
	1	1	2	가	가
	1	1	2	가	가
	1	1	2	가	가
	1	1	2	가	가

(74)

:

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**(54)** , ,

---

, , 가

(a) (a) (b)  
, (I) (III) , (b)

n(a) > n(b) × 10 (I)

1 < (nx - nz) / (nx - ny) (II)

0.0005 n(a) 0.5 (III)

(a) (a) X , Y n(b)  
 (b) , Z X Y

(b)

1

,

( ,  
  ( ,  
    3-33719 ),  
    3-24502 ).

( , 4-194820 ), , ( , 가 8-511812 ).

nx > ny > nz  
 . , nx, ny, nz      X , Y      Z  
 . , Y      X  
 Z      X      Y

가

(b) , (a) , (a) (I) (III) (b)

$$n(a) > n(b) \times 10 \text{ (l)}$$

$$1 < (nx - nz) / (nx - ny) \quad (II)$$

0.0005 n(a) 0.5 (III)

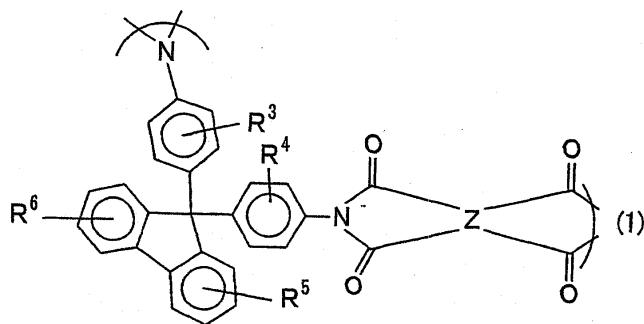


(a) (I), ,  
       , , (b)

$\text{nx} > \text{nz}$ ,  $\text{ny} > \text{nz}$

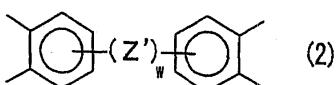
2,000 , (Mw) 1,000 1,000,000  
500,000 .

2000-511296 , 9,9- ( ) 가 , (1) 가



(1) , R<sup>3</sup> R<sup>6</sup> , , , 1 4 C<sub>1 10</sub> 1 C<sub>1 10</sub> , C<sub>1 10</sub> , R

(1) , Z C<sub>6</sub><sub>20</sub> 4 가  
(2)

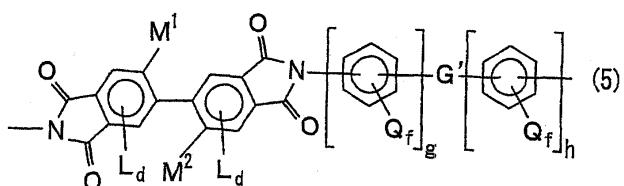
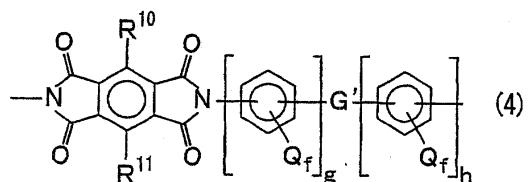
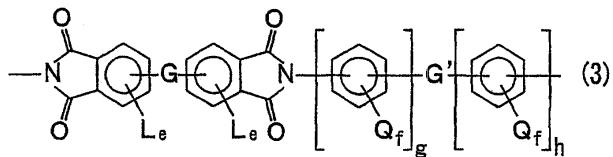


(2) , Z' , C(R<sup>7</sup>)<sub>2</sub>, CO<sub>w</sub>, O<sub>1</sub>, S<sub>10</sub>, SO<sub>2</sub>, Si(C<sub>2</sub>H<sub>5</sub>)<sub>2</sub>.R<sup>7</sup>, NR<sub>8</sub>, C(R<sup>9</sup>)<sub>3</sub>.R<sup>8</sup>, C<sub>6</sub>20, R<sup>9</sup>.

4 가 , F Cl

8-511812 , 가 (3) (4)  
(5) . , (5)

(3)



(3) (5), G G', CH<sub>2</sub>, C(CH<sub>3</sub>)<sub>2</sub>, C(CF<sub>3</sub>)<sub>2</sub>, C(CX<sub>3</sub>)<sub>2</sub> ( )  
, X .), CO, O, S, SO<sub>2</sub>, Si(CH<sub>2</sub>CH<sub>3</sub>)<sub>2</sub>, N(CH<sub>3</sub>)

(3) (5), L , d e . L , C 1 3 , C 1

$$3, C_{1 \cdot 3}, C_{1 \cdot 3}, \dots, 1$$

0 2 . e 0 3 , ,

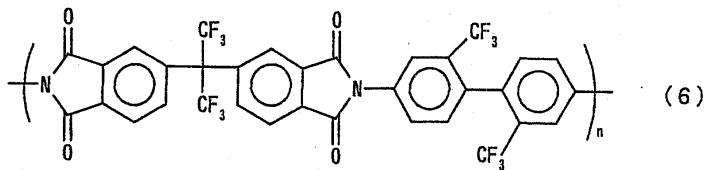
, , . f 0 4 , g h 0 3  
3 . , q h 1 .

$$(4) \quad , R^{10} \quad R^{11} \quad , \quad , \quad , \quad R^{10} \quad R^{11} \quad , \quad ,$$

$$(5) \quad , M_1 \quad M_2 \quad , \quad , \quad , C_{13} \quad , C_{13} \quad , \quad ,$$

$$, C_{13} \quad , \quad C_{13} \quad . \quad 1$$

(3) (6)



(6)

( )

, 2,2'-

, 3,6-

, 3,6-

(

, 3,6-  
3,3',4,4'-

2,3,3',4'-

, 2,2',3,3'-

2,3,6,7-

, 1,2,5,6-

, 2,6-

-1,4,5,8-

-2,3,4,5-

-2,3,5,6

-2,3,5,6-

2,2'-

-4,4',5,5'-

2,2'-

, 2,2'-

-4,4',5,5'-

, 2,2'-

(

)-4,4',5,5'-

3,3',4,4'-

(2,3

-3,4-

, 2,2-

(3,4-

(2,5,6-

, 4,4'- (3,4-

)-2,2-

,

)-1,1,1,3,3,3-

, 4,4' -

(3,4-

)

), 4,4' - [4,4' -

- (p -

)]

)

)-N -

, (3,4 -

2,2'

(

2,2'

)-4,4',5,5'-

2,2' -

,

-2-

o-, m-, p-

1,3-

-4-

, 2,4-

, 1,4-

-2-

, 1,4

2,2'

, 3,3' -

1,8-

, 1,5 -

2,6 -

, 2,4 -

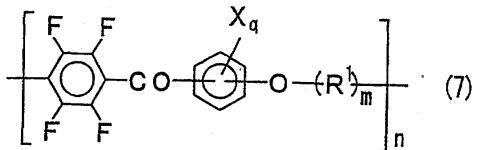
, 2,4 -

-S -

, 2,2' - ( ) -4,4' - , 4,4' - , 4,4' - (9 -  
 -4,4' - , 2,2' - (4 - ) -1,1,1,3,3,3 - , 3,3' - -4,4' - , 2,2' - (4 - ) - , 2,2' - (4 - ) - , 3,4' -  
 , 2,2' - (4 - ) - , 1,3 - (3 - ) - , 4,4' - (3 - ) - , 4,4' - , 2,2' - [4 - (4 - ) - , 1,4 - (4 - ) - ] - , 4,4' -  
 , 4,4' - (4 - ) - , 2,2' - [4 - (4 - ) - ] -1,1,1,3,3,3 - , 4,4' - , 4,4' - , 4,4' -

(a)  
(7)

2001-49110

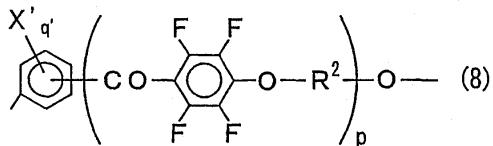


(7) , X , q , X 가 , , .

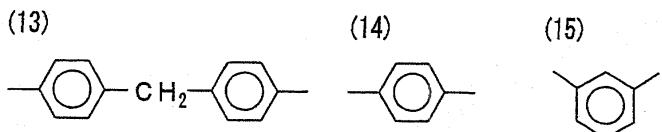
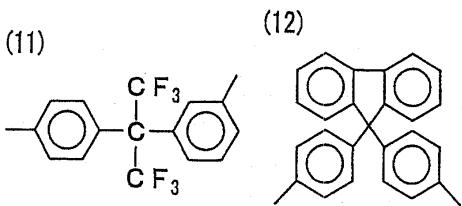
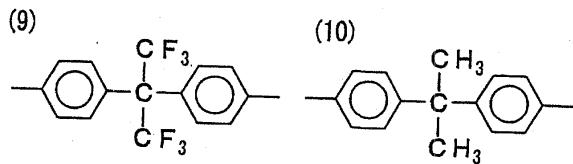
가 . , , , , , , ,  
C 1 6  
C 1 4  
, sec- , tert- 가 . , , , , , , ,  
C 1 6  
C 1 4  
, sec-  
tert- 가 . , , , , , , ,

$$(7) \quad , q = 0 \quad . \quad (7) \quad q = 0 \quad ,$$

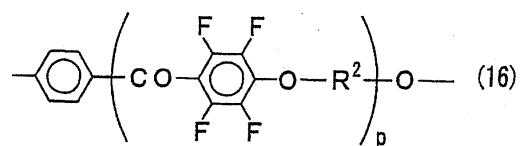
$$, \quad (7) \quad , R^{-1} \quad (8) \quad , m = 0 \quad 1$$



$$(8) \quad , X' \quad , \quad q' \quad , \quad X' \quad , \quad 0 \quad 4 \quad , \quad q' = 0$$

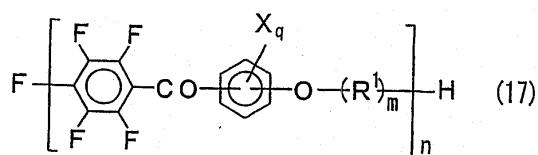


(8) (7), R<sup>1</sup> (16) 가 (16), R<sup>2</sup> p

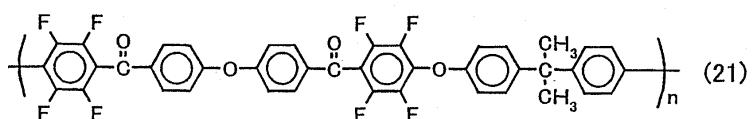
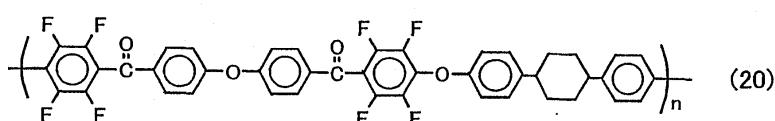
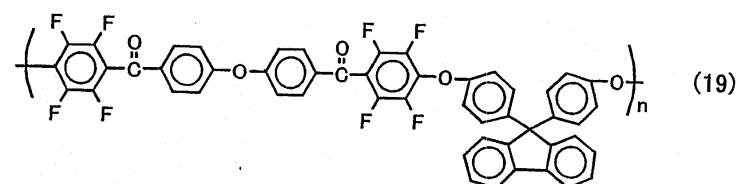
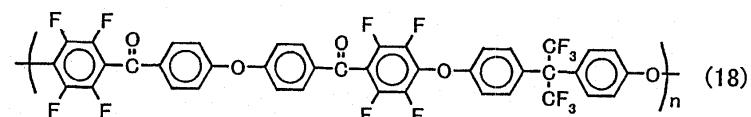


, (7), n , 2 5000 , 5 500 ,

, (7) , p- (17) , , , ,



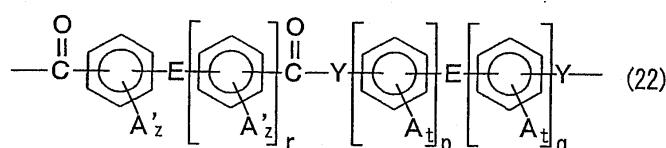
(7), n (7) (18) (21)



(a)

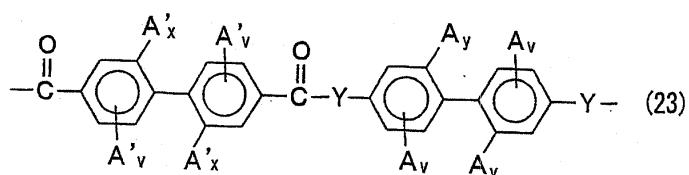
10-508048

22) , (



, C(CX<sub>3</sub>)<sub>2</sub> , Y O NH . E . ), CO , O , C<sub>2</sub> S , SO<sub>2</sub> , Si(R)<sub>2</sub> , , CH<sub>2</sub> N(R)

1 3 , 1 3 , , Y . E R C 1 3 C  
 , q 1 3 (22) , A A' , r 0 , t 3 . , p 0 3  
 A , , C 1 3 , C 1 3 , OR ( , R , C 1 9 )  
 C 1 12 , C 1 12 , C 1 12 , C 1 12 , ,  
 . A' , C 1 3 , C 1 3 , ,  
 1 3 , C 1 3 , t 0 4 , z 0



$$(23) \quad , A, A' \quad Y \quad , \quad (22) \quad , v \quad 0 \quad 3 \quad , \quad 0 \quad 2$$

x y 0 1 , 0 .

(b)

가

(1)

가

2001-343529 (WO 01/37007 )  
가 .

가

N -

가

가

가

(I) (III)  
2

1

(b)

(a)

b)

(b)

(a)

(a)

(I) (III)

가

$$nx = ny > nz$$

$\geq \text{nnz}$ )

(I)

가

가

0 $\mu\text{m}$ , 30 100 $\mu\text{m}$ . . . , 10 200 $\mu\text{m}$ , 20 15  
 (nx > ny > nz)

가

가

, 가

가

A), ABS , AS (PE), (PP), (PS), (PMM)  
 (PC), (PA: ), (PET), (POM),  
 . 가 (PPS), (PBT)  
 (PI), (PCT), (PES), (PK),  
 (LCP)

0      50      %

가 , (a) 가 , 5% 가 ,  
2% , 0.2% .

, 2 , (b)  
가 (a) (b)  
1  
가 (a) 1

, 1 5 가 , 1 4

2 (I) . (a)

1 2  
가 . . . (a)

(b)

2 2 3  
 2 (2) (20) (3)  
 (1) (3)  
 (3)

(1), (2) 2 (3) 가 (3) (1)

(a)

(b)

, 3 (30) (1) (3)  
 (2) (1)

(1), (2)

(3)

(a) (b)

(1) (b)

(2)

, , , , , 2 2

가

(PVA)

PVA

PVA

PVA 1 80 $\mu$ m

TAC

2001-343529 (WO01/37007)

가

N-

(Rth) - 90nm + 75nm  
 - 70nm + 45nm  
 ( )

- 90nm + 75nm  
 , nx, ny, nz  
 - 80nm + 60nm  
 , d

$$Rth = \{[(nx + ny) / 2] - nz\} \cdot d$$

가

가

2

500 $\mu$ m, 5 300 $\mu$ m, 5 150 $\mu$ m

가

가

0 2 70 5 50 0.5 20 $\mu$ m 10

( )

가

가 PVA

PVA 가

가

1nm, 500nm, 가

10nm 300nm, 20nm 100nm

PVA

가

가

가

, PVA 가 , 가 .

( ) , ( ) .  
가

( ) ,

가

3M

「D-BEF」

「PCF350」, Merck

「Transmax」

, 가 2

2

, 가

, 가

가

1

1 500 $\mu$ m

가

, 가

가

, 가

( )

Vertical Aligned)

, VA

VA (

1 2

4 , (1), (2) (3) , (21) , (40) (21)  
, (b) , ( ) . (1) , 2 (a) (2) .  
( ) 偈 , , ,

(EL) , PDP, FED

(EL) . EL

, EL  
/4

EL . EL  
( EL )

EL 가 , 가 , 가

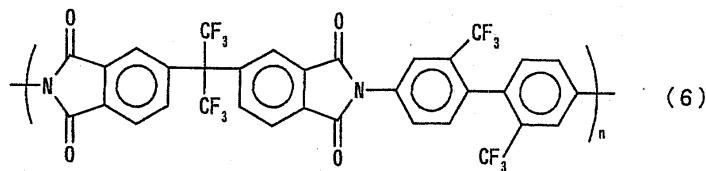
가

AI - Li

EL  
,

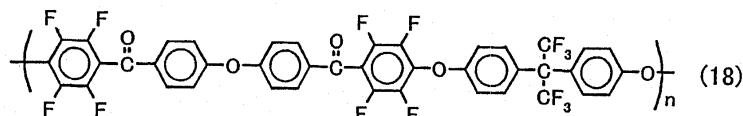
EL , 10nm 가





(2)

(18) (Mw: 500,000)  
 1 TAC , 100 , 20 %  
 n(a) 0.02 (b)) 10 , nx > ny > n  
 $\mu\text{m}$



(3)

4,4'- (3,4- ) -2,2- 20 % 2,2'- -4,4' -  
 (Mw: 30,000) TAC , 130 5 , 150 TAC (b)) 10%  
 $\mu\text{m}$ , n(a) 0.025 (a)) 80 $\mu\text{m}$ , n(b) 0.0006 TAC (b)) 80 $\mu\text{m}$ , nx > ny > nz

(4)

2,2'- (3,4- ) (Mw: 100,000) 2,2'- ( ) -4,4' -  
 80 $\mu\text{m}$  TAC , 130 5 , 150 TAC (b)) 10%  
 10% , 6 $\mu\text{m}$ , n(a) 0.04 (a)) 80 $\mu\text{m}$ , n(b) 0.0006 TAC (b)) 80 $\mu\text{m}$ , nx > ny > nz

(5)

N- 28 % (N- 50 %) 75 ,  
 15 % , 60 PET , 100 , 10  
 , 140 , 10 , 160 , 30 Rth = (nx - nz) \* d (b) ,  
 $\text{nd} = (\text{nx} - \text{ny}) * d$  1nm, , 4nm  
 , 130 , 10% (b) , 1 , , 100 , 5  
 (b)) , 6 $\mu\text{m}$ , n(a) 0.035 (a)) 50 $\mu\text{m}$ , n(b) 0.0001  
 nx > ny > nz

(6)

1 1 TAC , 160 , 25 %  
 75 $\mu\text{m}$ , n(b) 0.0006 TAC (b) 5 , 6 $\mu\text{m}$ , n(a) 0.04

( a)  $nx > ny > nz$

( 7)

a) 1 , ( 80 $\mu m$ , TAC , ( , 100 (b)) 10  
0.025 , n(b) 0.0006 TAC nx , ny > nz  
( a))

( 1)

n 0.002 (JSR , ARTON ) 175  
1.3 80 $\mu m$  가 , nx > ny > nz

( 2)

1 , , , 100 , 10  
nx ny > nz , 7 $\mu m$ , n 0.04

( 3)

75 $\mu m$  (PET) 175 1.3  
75 $\mu m$  PET , , PET  
( 150 , 5 , 75 $\mu m$ , n(b) 0.08 PET  
( b)) , 6 $\mu m$ , n(a) 0.04 ( a))  
nx > ny > nz

( 4)

3 , 3 PET , , 150 (b) 5  
0.035 , 75 $\mu m$ , n(b) 0.08 PET ( , (b) , , 10 $\mu m$ , n(a)  
( a)) nx > ny > nz

$nd = (nx - ny) \times d$ ,  $Rth = (nx - nz) \times d$ ,  $Nz = (nx - nz) / (nx - ny)$ ,

5  
5

5 (b) 1 TAC

[ 1]

	n(b)	n(a)	nd ( $\mu m$ )	Rth ( $\mu m$ )	Nz	( $\mu m$ )		
1	0.0006	0.045	135	270	2.0	6	- 0.5	+ 0.5
2	0.0006	0.020	10	200	20	10	- 0.5	+ 0.5
3	0.0006	0.025	50	125	2.5	5	- 0.5	+ 0.5
4	0.0006	0.039	100	235	2.4	6	- 0.5	+ 0.5
5	0.001	0.035	80	210	2.6	6	- 0.5	+ 0.5
6	0.0006	0.038	70	230	3.3	6	- 0.5	+ 0.5
7	0.0006	0.025	0.9	100	111.1	4	-	
1	-	0.002	91	182	2.0	80	- 2.5	+ 2.5

2	-	0.043	0.3	298	993.3	7	-		
3	0.08	0.042	50	250	5.0	6	-	0.5	+ 0.5
4	0.08	0.035	44	370	8.0	10	-	0.5	+ 0.5

1 4 (I) , (II) (III) ,

( 가 )

， 1 7 1 4 ( ( ) ，  
「HEG1425DU」) (b) 가 .

, 가 . ,  
(斜視)가 , , (II) 가 100 1 6

(I) (III)

가

(I) (III)

$$nx > ny > nz$$

가

(57)

1.

(a) (b)  
      (I) (III)

(b)

(a)

$$n(a) > n(b) \times 10 \text{ (I)}$$

$$1 < (nx - nz) / (nx - ny) \quad (II)$$

0.0005 n(a) 0.5 (III)

[ (I) (III) , n(a) , (a) , n(b) (b) ,  
  , X , Y Z , X , nx', ny' nz' , nx, ny nz (b) X , Y Z  
 ) , Y , X (a) (b) , Z X Y ]

$$n(a) = [(nx + ny) / 2] - nz$$

$$n(b) = [(nx' + ny') / 2] - nz'].$$

2.

1 , (b) ,

(a)

3.  
1 , (a)

가

4.  
3 , 가 , , ,  
1

5.  
1 , (b) , (a)  
, (b)

6.  
5 , 가 (b)

7.  
1 , (b) , (a)  
(b)

8.  
1 , 가

9.  
8 ,

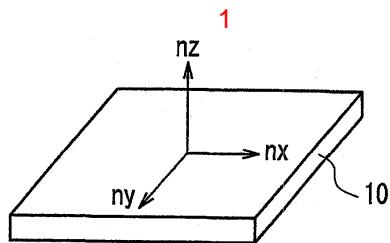
10. , 1

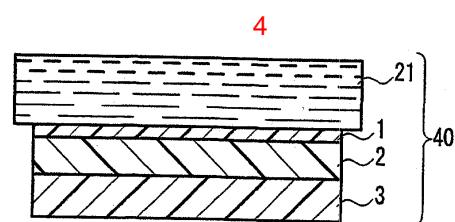
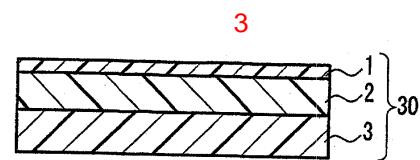
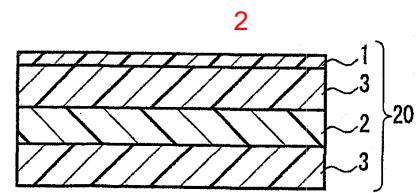
가

11. , 10

11

12. , 10





专利名称(译)	光学膜，层压偏振片，使用其的液晶显示装置和自发光显示装置		
公开(公告)号	<a href="#">KR1020040071313A</a>	公开(公告)日	2004-08-11
申请号	KR1020047010862	申请日	2003-01-22
[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	MURAKAMI NAO 무라까미나오 YAMAOKA TAKASHI 야마오까다까시 YOSHIMI HIROYUKI 요시미히로유끼 NISHIKOUJI YUUICHI 니시꼬우지유우이찌 HAYASHI MASAKI 하야시마사끼		
发明人	무라까미나오 야마오까다까시 요시미히로유끼 니시꼬우지유우이찌 하야시마사끼		
IPC分类号	G02F1/13363 G02B5/30		
CPC分类号	G02F1/133634 G02F2201/50 G02F2201/54 G02B5/3083		
代理人(译)	韩国专利公司		
优先权	2002014529 2002-01-23 JP 2002151337 2002-05-24 JP		
其他公开文献	KR100591056B1		
外部链接	<a href="#">Espacenet</a>		

## 摘要(译)

透明光学膜本发明涉及一种具有优异光学性能的透明光学膜，它可以防止彩虹斑的出现并显示出均匀的相位差分布。包括光学薄膜的光学薄膜是双折射层(a)和所述透明膜(b)本发明的，双折射层(a)在(b)中的透明膜被层压，并且下述式(I)～(III)。 $n_a > n_b$  (I)至(III)，其中n是满足下式(I)的整数： $n_a > n_b$  (A)是双折射层(a)的双折射率， $\Delta n_b$ 是透明膜(b)的双折射率。其中 $n_x$ ， $n_y$ 和 $n_z$ 分别表示X轴，Y轴和Z轴方向的双折射层(a)的折射率，X轴是在双折射层(a)和所述透明膜的面(b)中Y轴是在平面内垂直于X轴的轴向，Z轴表示垂直于X轴和Y轴的厚度方向。1

