

(19) (KR)
(12) (A)

(51) 。 Int. Cl. ⁷ H05B 33/22	(11) (43)	10-2004-0029433 2004 04 06
--	--------------	-------------------------------

(21)	10-2004-7002149	
(22)	2004 02 13	
	2004 02 13	
(86)	PCT/JP2003/005998	(87) WO 2003/096755
(86)	2003 05 14	(87) 2003 11 20

(30) JP-P-2002-00138285 2002 05 14 (JP)

(71) 가 가 가 1 6 2

(72) 가 가 가 가 2-20-5,B202

가 가 1-1425-3-234

(74) :

(54)

2 , 1 , 1 2 . 2 2 .

1a

EL, , , , , , ,

, EL - , , , EL 가 ,
, , , EL ,
. EL , EL 가 .
22 EL (903), EL (904) (901) (902) E
L (904) (903) (903) , 2 , 3 ,
, .
(901) , (903) (905) 가 , (903)
EL (904) , (905) EL (904)
, 가 , EL (904) EL (904) EL (904)
. , (901) EL (904) (901)
(903) , (902) (905)
, (901) EL (904) (901)
, (901) EL (904) (902) , (902)
, (901) , EL (904) 가
L , 가 E
, ;
1 ;
1 ;
, 1 , 2 2
; 2 ;
, 1
2 , 1 ,
, 2 가 , 2 ,
, , , ,

가
가
가

- 1a 1 1b
2
3a 2 3b
4a 3 4b
5a 4 5b
6a 5 6b
7a 6 7b
8a 7 8b
9a 8 9b
10a 9 10b
11a 10 11b
12a 11 12b
13a 12 13b
14a 13 14b
15 14

16	15	;
17	16	;
18	17	;
19	18	;
20	19	;
21	20	;
22	21	.

가
; , ' (2) (2b)

1a

(1) (3), EL (4)() (5) (2)
) (2a) , EL (4) (3)
(3) (5) EL (4)
, (3) (5) 가

(2) 1.3 1.6 , 0.1mm 1.3mm , 가 ,

(3) (2) EL (4) (2a) (3) 가
, (3) EL (4) (3)
(ITO), (In-Zn-O), (In₂O₃), (ZnO)
, 2.0 2.2 50 nm 200nm

EL (4) (3) 20nm 200nm EL (4)
, EL (4) (903)
3 , (903) 2 ,
4

EL (4)

EL (4)
EL (4)
가 가 가 가 가
) EL (4) (

(5) EL (4) (5) 가 (5) (5)

, ITO EL (4) 2nm 15nm
50nm 200nm
가 70%

(7) (6) (5) (6) 가 ()
 (5) (7) , ()
 6) , .
 (7) (5) (7a) (7) (7b) 1 μ m
 200 μ m, 25 μ m 75 μ m (7c)가 (7d) (7e) (7c)가 (2x) (7e)
) (x) 2 : 1 , (7d) (3x) (7e) (2x) 3 : 2
 , (7e) () 120 ° .
 (8) (7) / (7b) (8) 가 ()
 7) (8) (7b) , 가 (8)
 (8) , .
 (7c) (2) , (2)
 (7) (7c) (8)
 (5) , (5) (3) .
 (1) (3) (2) (2a)
 , EL (4) (3) (5) EL (4) (2)
 , (8) (7) (7b) , (6)가 (2)
 (5) (7) (7a) , (7) (7a) (5)
 (6)가 (6) (1) .
 (1) , 2 (,
 EL (3) EL (4)).
 EL (9) ,
 (5) EL (4) (9) (3) , (9)
 EL (Tr) (3) .
 (Tr)가 . a-Si/TFT p-Si/TFT (Tr)
 (7c) EL () , (7c) (8)
 EL (Tr) EL (4) . EL (5) (2) 가 E
 L (4) , (9) EL (4)
 , EL (4)
 , (9) , EL (4) (3)
 EL (4) (5)
 (Tr) (9) (3) EL (4)
 (7) (2) (6)가 ,
 2 (1) CVD , (3) (2) (2a)
 , (Tr)
 , (Tr) (2) (3) .
 , (9) (Tr) , (

) (2) (2a) , (9) (, (3)), (9) . , (9) (3) , EL (4) . (5) , CVD 2 (5) , (5) (5) .

(8) (7) (7a) (7b) , (6) (6)가 (2) (5) (7) (7a) (5) (7c) (5) (6)가 2 (1) .

1a 2 (1) , ((3) (5)) (3) (5) (3) EL (4) (5) (5) EL (4) 가 , (3) (5) 가 EL (4) , EL (가 4) (3) (2) EL (4) (2) (2b) , EL (4) (5), (6) (7) EL (4) (6) (7) (8) , EL (4) (7), (6), (5), EL (4), (3) (2) (2b) .

1a 2 (1) , (5) EL (4) , EL (4) (8) (7c) (2b) . (1) (2b) EL (4) 2 (1) (2b) , EL (4) 가 .

1b 1a (1) , (2b) (O) (2) 1.5, 0.7mm , (O) (3), EL (4), (5) (6) (2) .

(L109) 22((905) 가 가) . 1 가 ,

(L1) 1a (1) , (902b) (901) 1 .

((7) (8) , , , , , ,)

1b , (1) 0 ° 60 ° (1) , 60 ° , 80 ° ,

(2b) , (1) (5) , 30 ° , 5 °

가, (5) 가, (2b) 가, (1)
 (1) 가, (1) 가,
 (1) (1) (2b),
 , 3a, 4a, 5a, 6a, 7a 8a (10) 15),
 (1) EL (4) (3)
 (5) 1 EL
 (2 가
 3a (10) (71) (5) (71a)
 (71b) (71c)가
 (71c) (71b) (8)
 (71c) (8) 가 () (10)
 (902b) 3b (L10) 3a 1
 (901) (71c) () 90° 100°
 (901) 180° (2b) 100°
 () 90°
 4a (11) (72) (5) (72a)
 (72b) (72c)가
 (72c) (x) (x)
 (x) 1:1 () (3x)
 3:1 (8) (72b) (72c) (8)
 4b (L11) 4a (11) (902b)
 (901) 1 (11) 180°
 (901) (901) (2b) 40°
 (901)
 5a (12) (73) (5) (73a)
 (73b) (73c)가
 (73c) (x) (4x) 1:4
 (6x) (4x) 6:4 (73b) (8)
 (73c) (8) 5b (L12) 5a 1
 (12) (902b) (901) (901)
 (12) 180° (901)
 (2b) 40°
 6a (13) (74) (5) (74a)
 (74b) (74c)가
 (74c) 가 (74c) (2x) x
 (8) (74b) (74c) (8)
 6b (L13) 6a (13) (902)
 (901) 1 ()
 b) 13) (2b) 40° (901)
 7a (14) (75) (5) (75a)

(75b) (75c)가 (3x)() (2x)() 3:2 .
 (8) (75c) (75b) , (75c) (8) (902b) (14)
 7b , (L14) 7a (14) ,
 (2b) (901) 1 60 ° (901) .

8a (15) , (76) (5) (76a) .
 (76b) (76c)가 () () 2:3 (8) 8b ,
 (L15) 8a (15) , (902b) (15) (2b)
 (901) 1 20 ° 35 ° (901) .

3a, 4a, 5a, 6a, 7a 8a , (3), EL (4) (5) 2
 (9) , (71c) 76c) (8)
 ((3), EL (4) (5))

1a, 2, 3a, 4a 5a (1, 10 12) , (2)

9a 1a (1) (2) (21) (1')
 (3), EL (4) (5) (21) (21a)
 (21) (21b) (21c)가 (y)
 (21c) ()
 (7c) (21c) (21c) (7c)
 , 9b , (L1) 9a (1')
 (902b) (901) 1
 (1') 180 ° (901) (21)
 60 ° (901)

10a 3a (10) (2) (21) (10')
 (3), EL (4) (5) (21) (21a)
 (21) (21b) (21c)가
 (21c) 9a (21c)
 (21c) (7c) (7c) 10b , (L10') (901)
 10a (10') (902b) (21c) ()
 1 (71c) () 90 ° (21c) () (71c) () 100 ° (901)
 (10') (,) 90 ° 100 ° 180 ° (901)
 (21) 40 ° (901)

11a 4a (11) (2) (21) (10')
 (3), EL (4) (5) (21) (21a)
 (21) (21b) (21c)가
 (21c) 9a (21c)
 (21c) (72c) (72c)
 11b , (L11') 11a (11') (902b) (21c)
 (901) 1
) () 100 ° (11') 180 ° (901)
 , (21) 45 ° (901)

12a 5a (12) (2) (21) (12')
 (3), EL (4) (5) (21) (21a)

(21) (21b) (21c) (21c) (71c) (21c) (73c) (12b) (L12')
 (21c) (73c) 12a (12') (902b) () 100° 108°
 45° (12') (901) (901) (21) (21)

13a 3a (10) (2) (22) (10'') (3)
), EL (4) (5) (22) (22a) (22b) (22) (22b)
) 가, (22c) (71c) (22b) 1/2 (22c)
 (22c) (71c) (71c) 13b (L10'') 13a 1
 (10'') (902b) (901) () 90°
 (21c) () (71c) () 100° 가 (,) 가
 90° 100° (10'') 180° (901) (22)
 45° (901)

a (50) 14
 (16)

14a (51) (3), EL (4) (51) (21) (21a)
 (51) 가 (5) (21b) (5)
 (5) (21c) (21) (21b) 14b (L16) 14a
 (16) (902b) (21c) () 90° 100°
 1 () 90° 100° (12') 180° 30° (901)
) (21) (9)

15 (17) (8) (EL) (32)
 (32a) (8) (32) (32a) (3)
 2a 가 (가, (5) 가 (8) 가 (31) ,
 (5) (8) 가)가 ,

(17) (2) (2a) (3)
 () (3) EL (4) (5) (32c)가 (32c)).

(32) (8) (5) (32) (32a) (8) (2)
 (32a) (32c) 1 (7c) (8) (5)
 (31) (31) (5)
 (8)
 가 (2) (32) 가 가 (32) (2)
 (5)

(17) , (1) .

(17) (8) . , (5) EL (4)

(17) 16 (18) , 가 (52)

(32) (32a) , (31) EL (4) (52)

(31) 가 (, 가 , 가 , 가 , 가)

(52) (31) EL (4) (52) (32) (32c) (52)

Tr) (18) (9)(16) (2) (2a) (3) EL (4) (

(32c) (32)

(31) (52) EL (4) (32) (32a) (2) 가

(18) (31) EL (4) (19) , (18)

(32a) (52) , (3) (52) EL (4) (32) (52)

EL (4) EL (4) (32c) 가 ,

(33) EL (4) EL (4) 1 1

(52) 2 (52) 가

(19) (32) 18 (20)

(20) , (19)

(20) , EL (4) (2) (2a) (3) EL (4) (4a) EL (4) (52) ,

(52) EL (4)

19 (30) , 가 15 (17) (3

1) (30) (32) (32a) (8) (17) (32a) (31)

(34) (32a) (5)

(30) (34) (5)

20 (19') , 17 (19) (2) (102)

EL 가 (102a) (102c) EL (4')

(52) (102a) (3') EL (4') (52) (102c)

(52) (132)

가

21 , (40) (43), (44), EL (45) (46)

) (42) (42a)

(42) 가 , ,

(42) 1.5 .

(43) (42) (42a) (43) 가 (43) , (43) (42) (43) , (43) 가 (43) PTFE(: 1.35), PFA(: 1.35), PFEP(: 1.34), MEXFLON-H15(: 1.35,), CYTOP(: 1.35,) .

(44) (43) (44) 가 (44) (44) EL (45) (44) (SnO₂) (43) (ZnO) (ITO), (IZO), (In₂O₃), (44) ITO 2.0 (42) .

EL (45) (44) 3 EL (45) , (3) (44)₂ .

EL (45) , EL (45) ()

(46) EL (45) (46) 가 , (46) .

(40) 100 μ m , 가 (42) (42a) (44) 150 (43) EL (45) (44) (46) EL (45) .

(40) , () , (43) (40) (43) (4) 3) , (42) 1.5 .) (42b) 90 ° 가 (43) (42b) 가 (: 90%가 .), , (42) .

(2), (22), (21) (22) , EL (22) (가) , , EL (2), (21) 가 () 가

가, (2), EL (42), (21) (22) , EL (2), (4 2), (21) (22) 1 (가) 2 () , (가)) 가 EL ,

가 , EL 가 .

가 .

가

(57)

1.
;

1 ;

1 ;

2 , 1 , 2 ;

2

2.

1 ,

3.

1 , 가

4.

1 ,

5.

4 ,

6.

4 ,

7.

4 ,

8.

4 ,

9.

1 , 1 , 2

10.

9 , ,

11.

9 ,

12.

1, 1, 2,

13.

12,

14.

1,

15.

14, 가 가

16.

1,

17.

1,

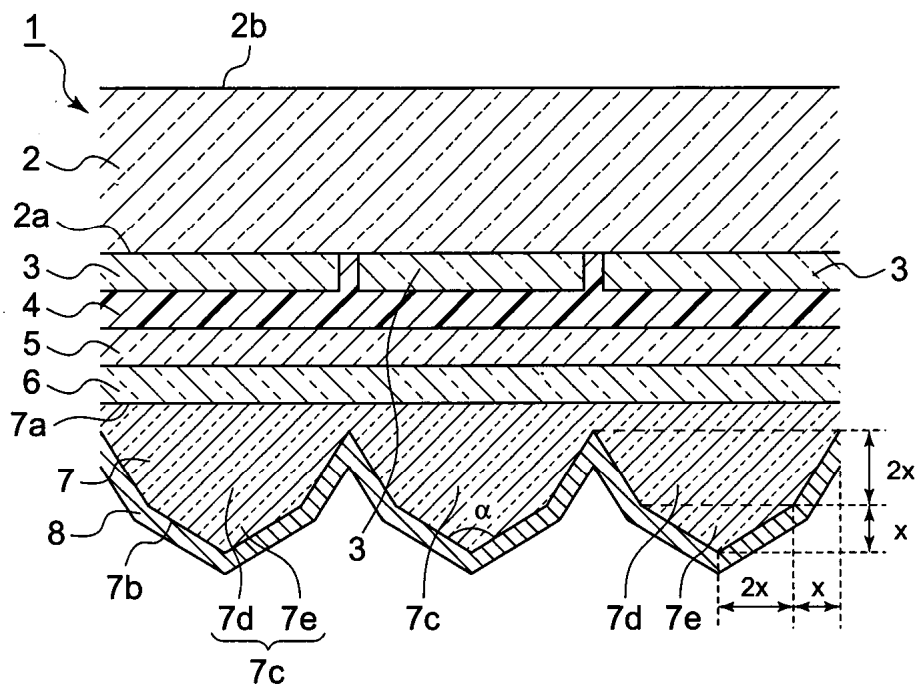
18.

1,

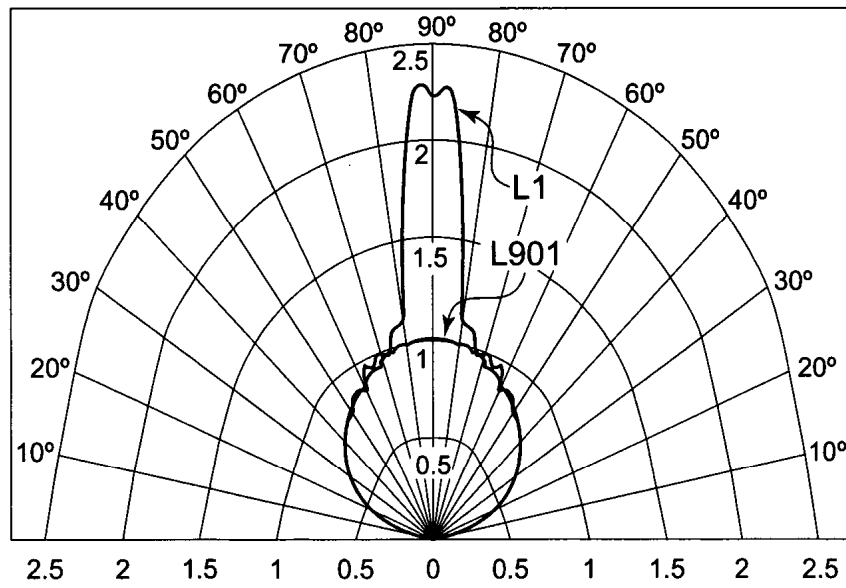
19.

1, 1

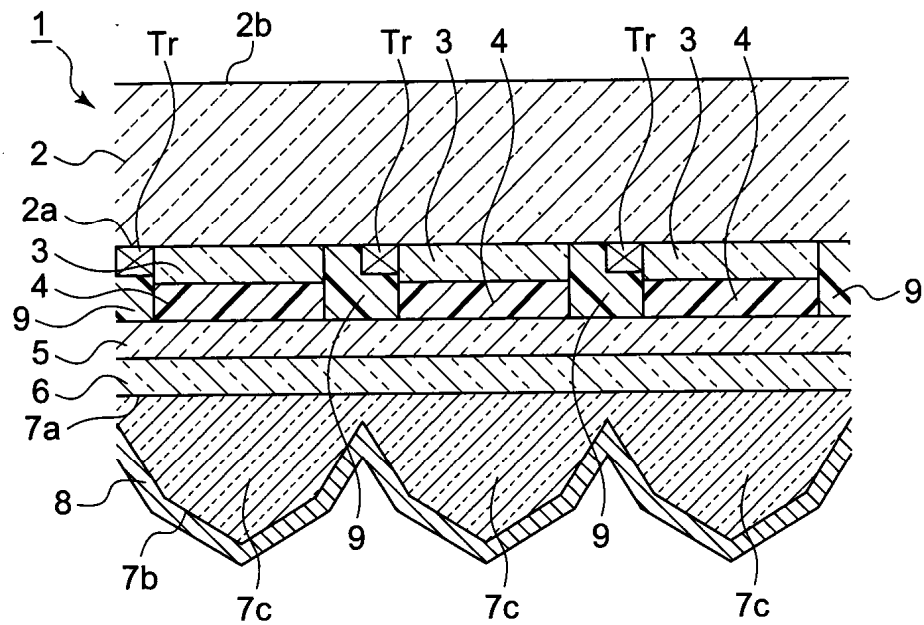
1a

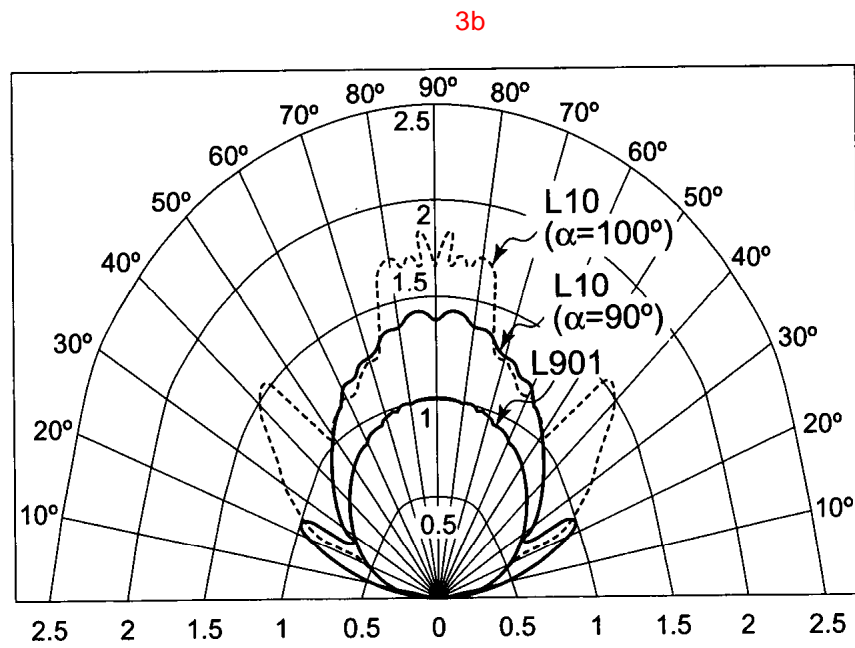
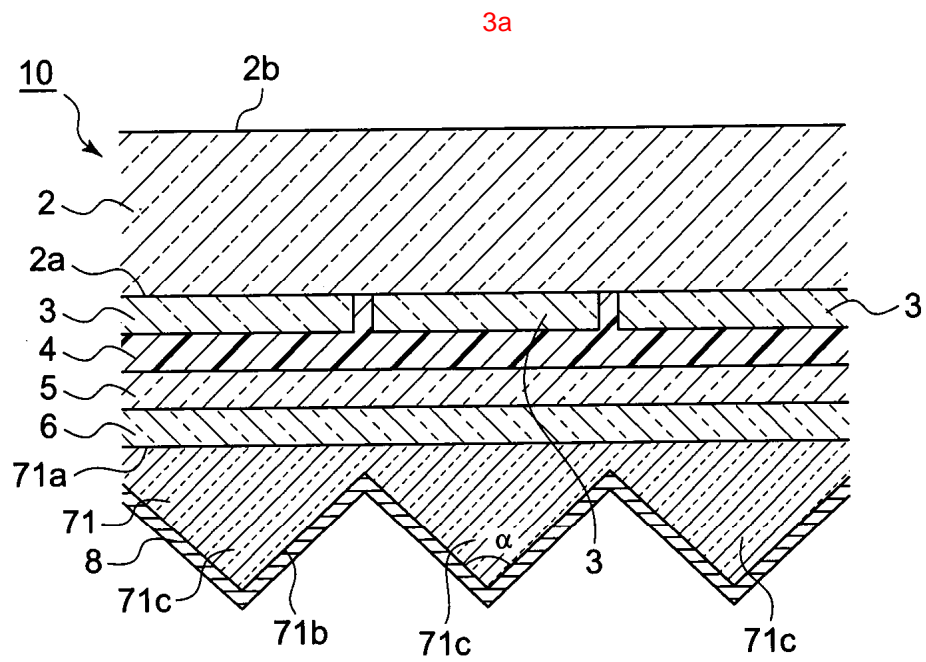


1b

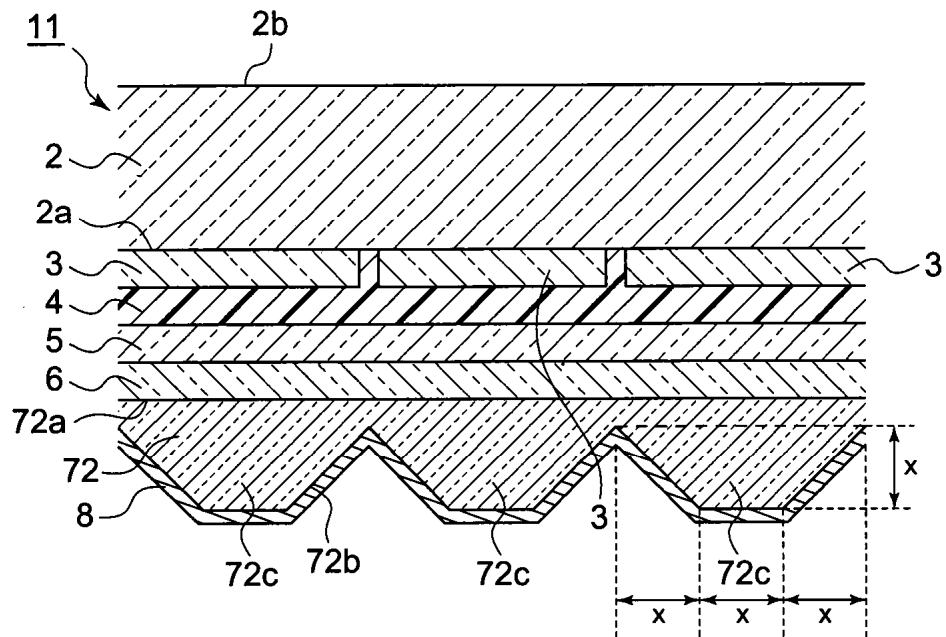


2

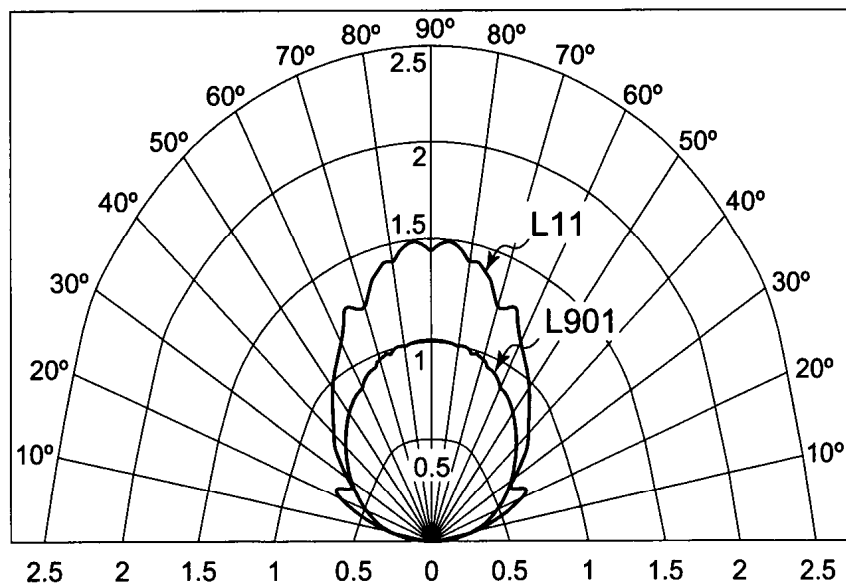




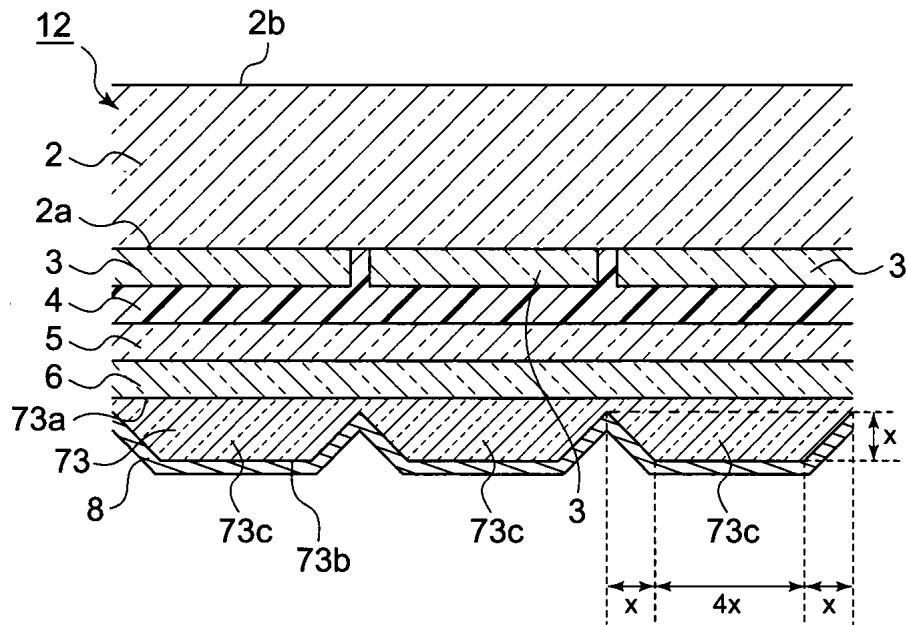
4a



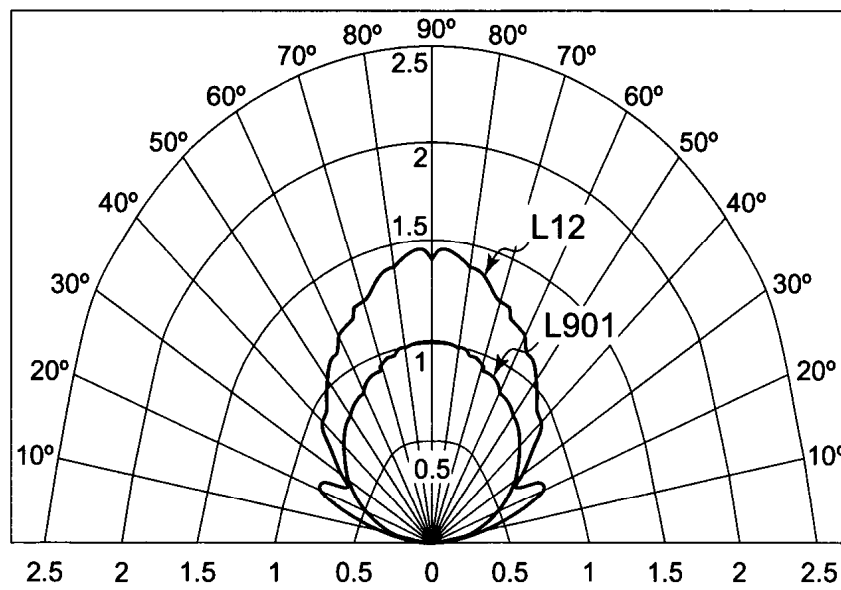
4b



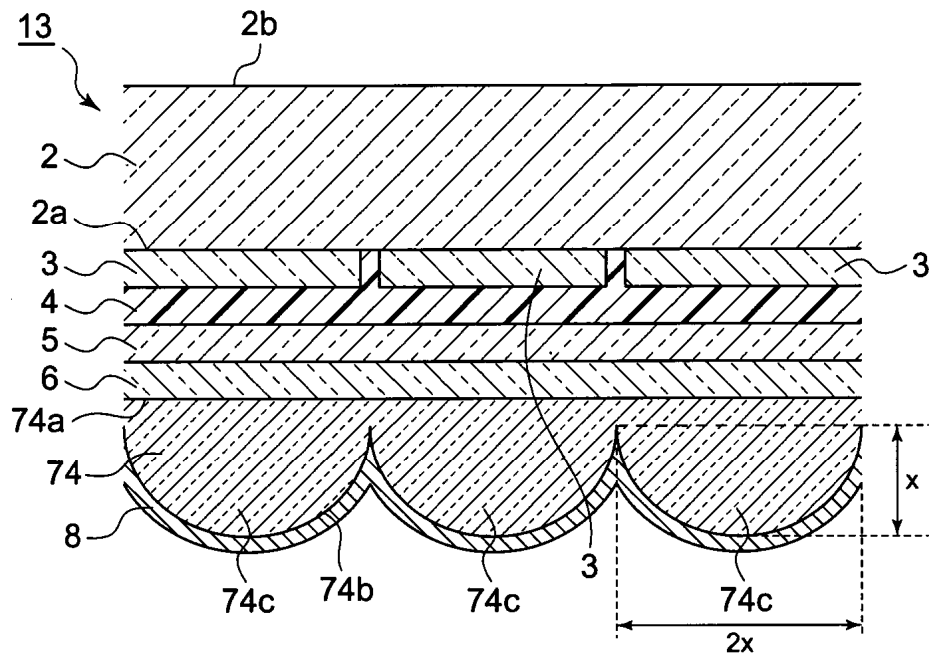
5a



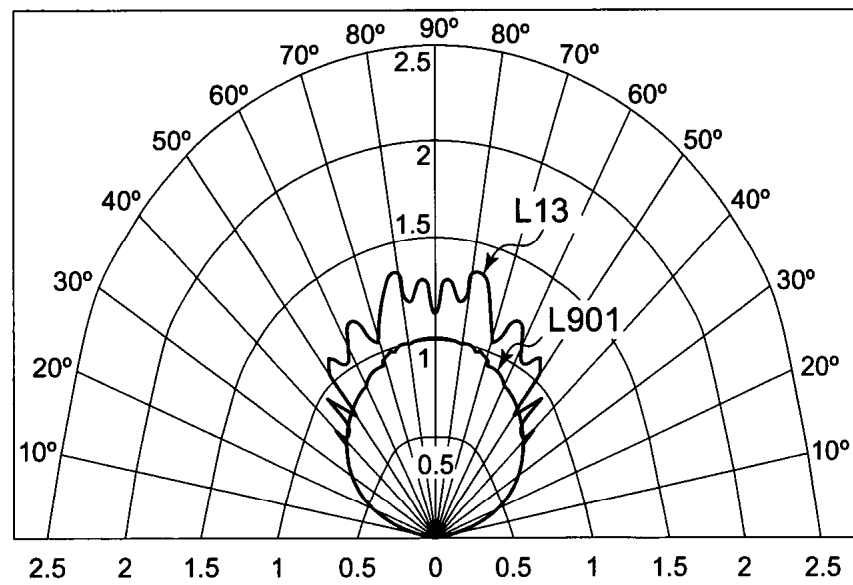
5b



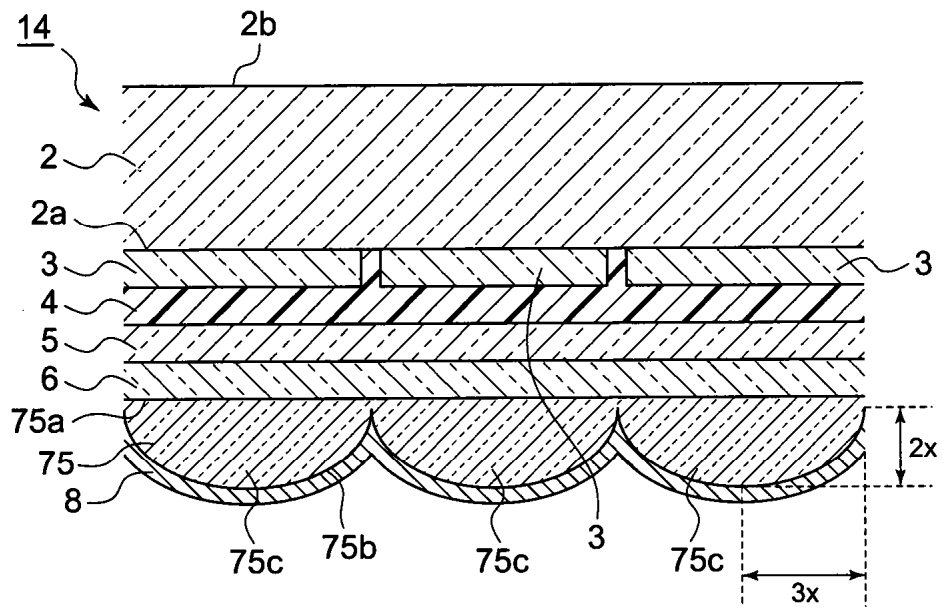
6a



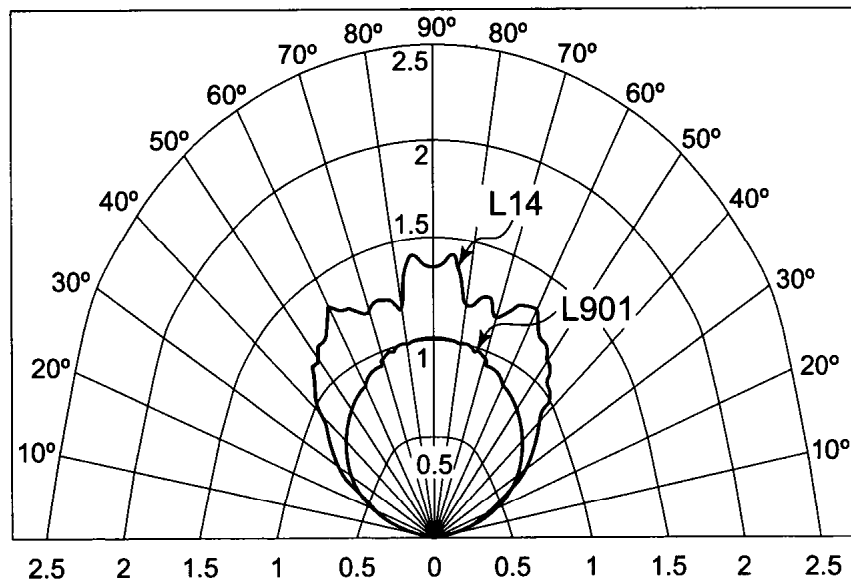
6b



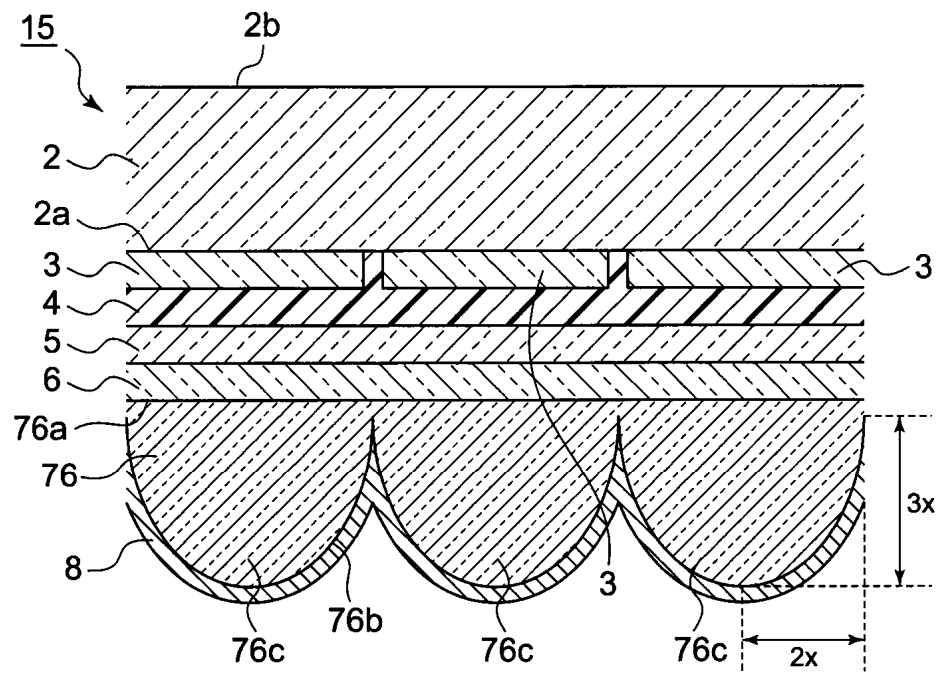
7a



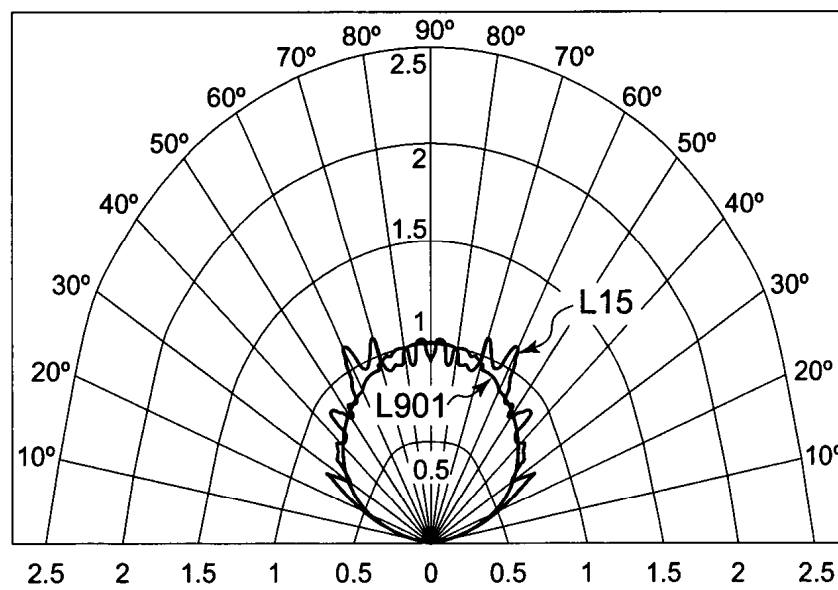
7b

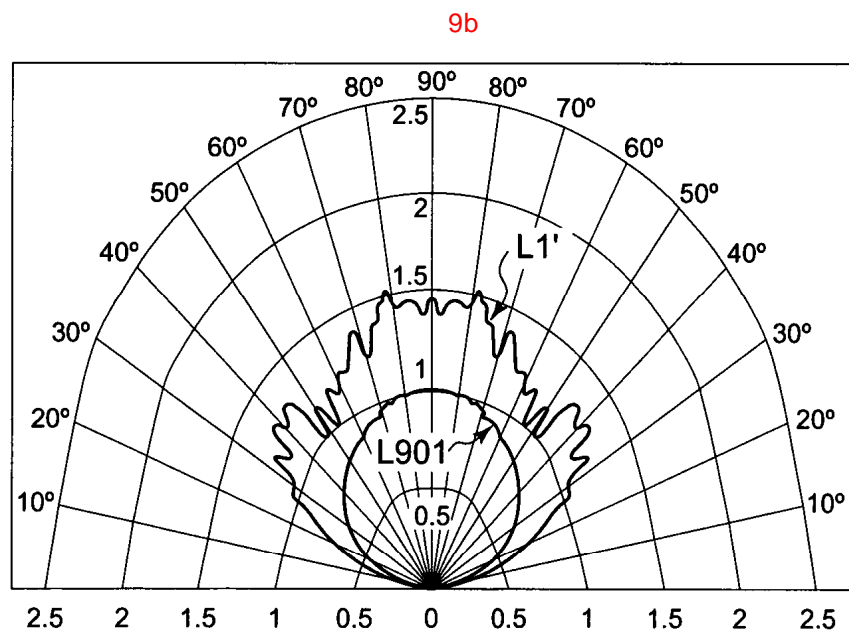
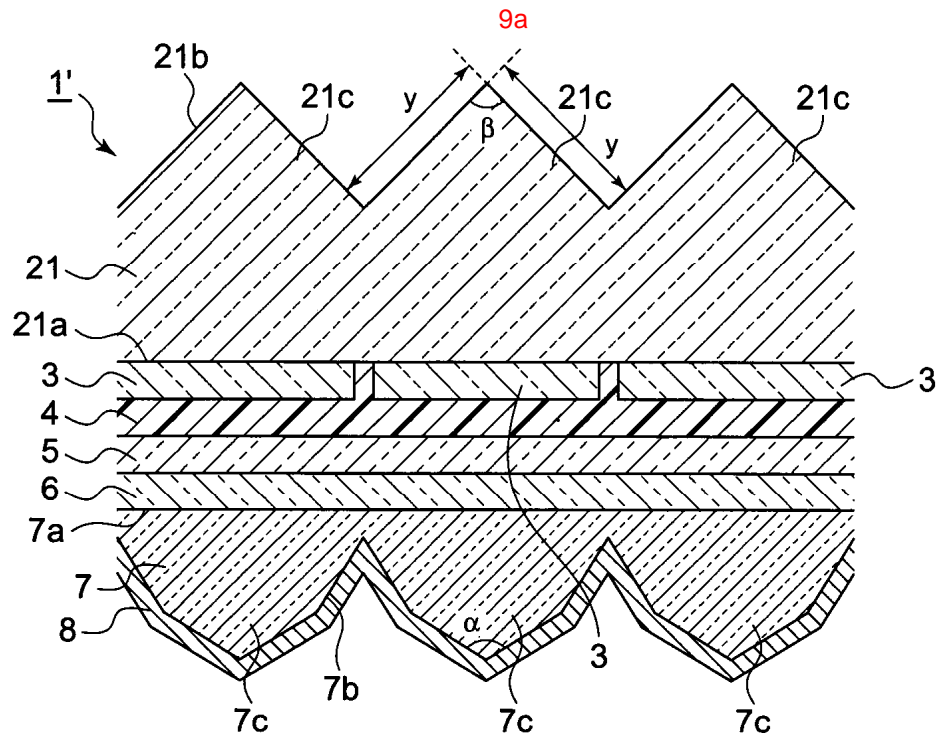


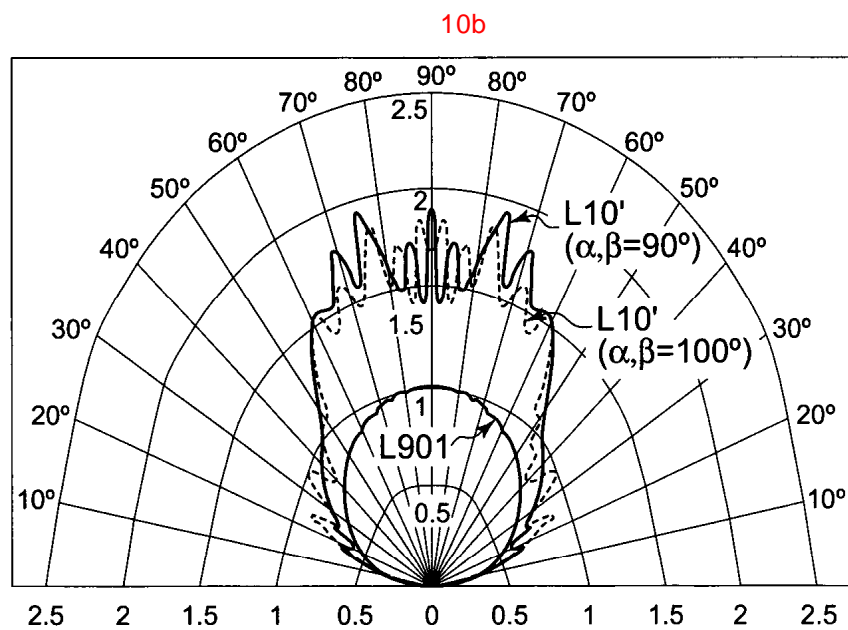
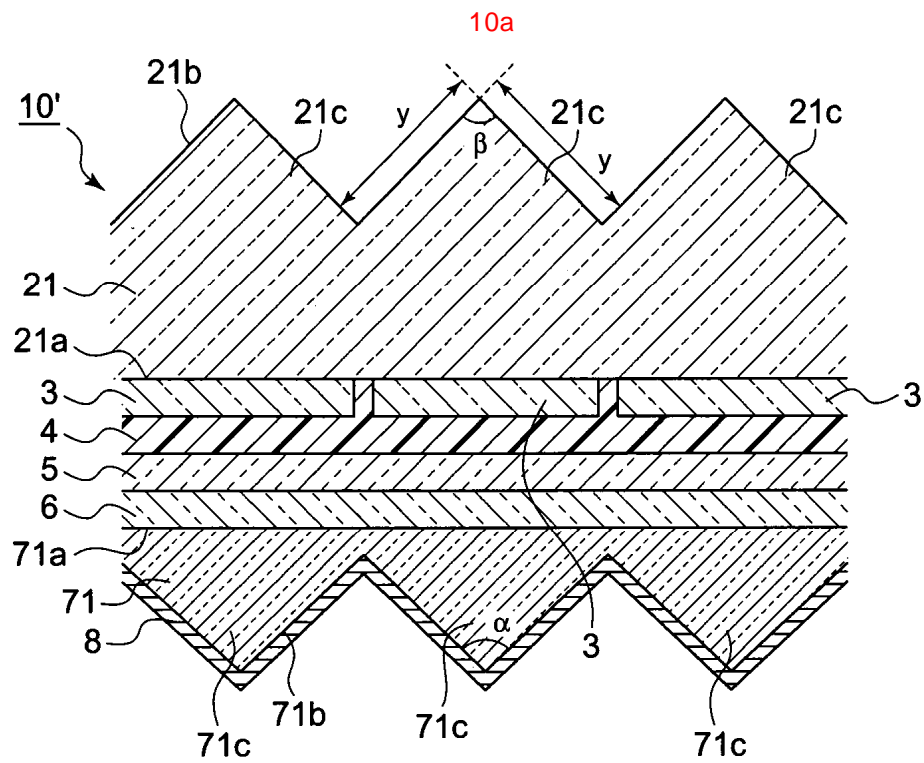
8a

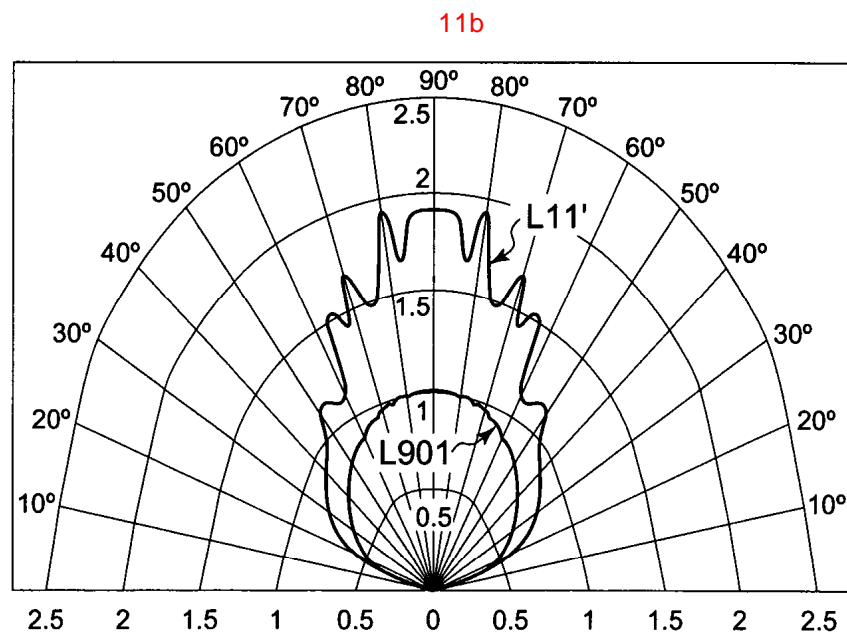
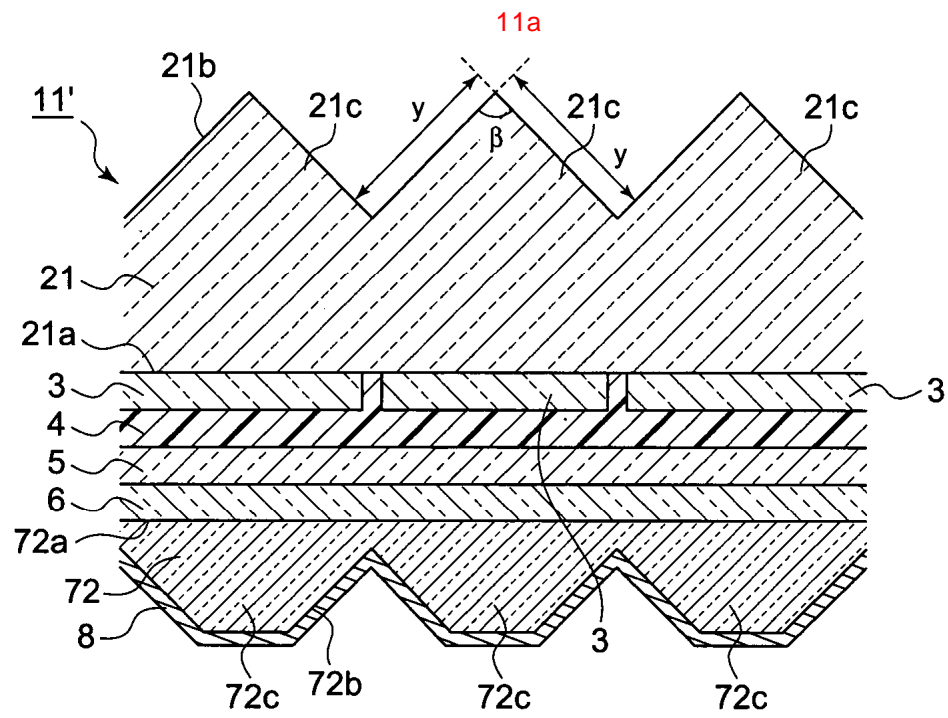


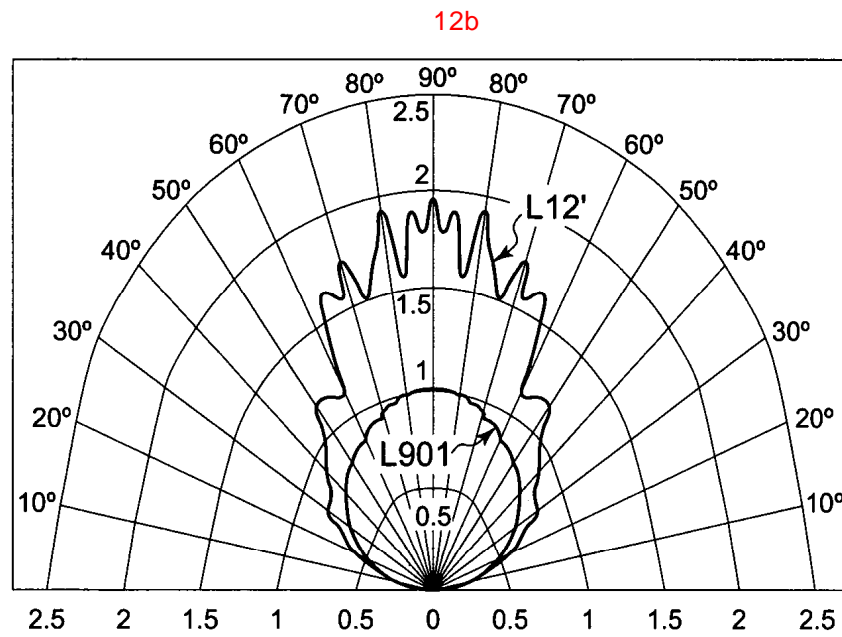
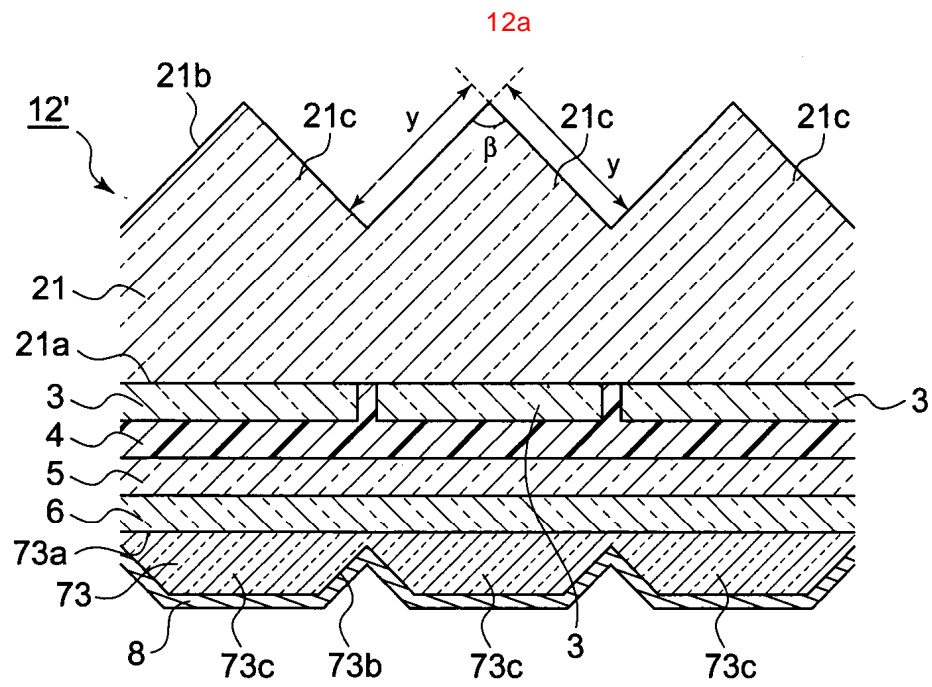
8b

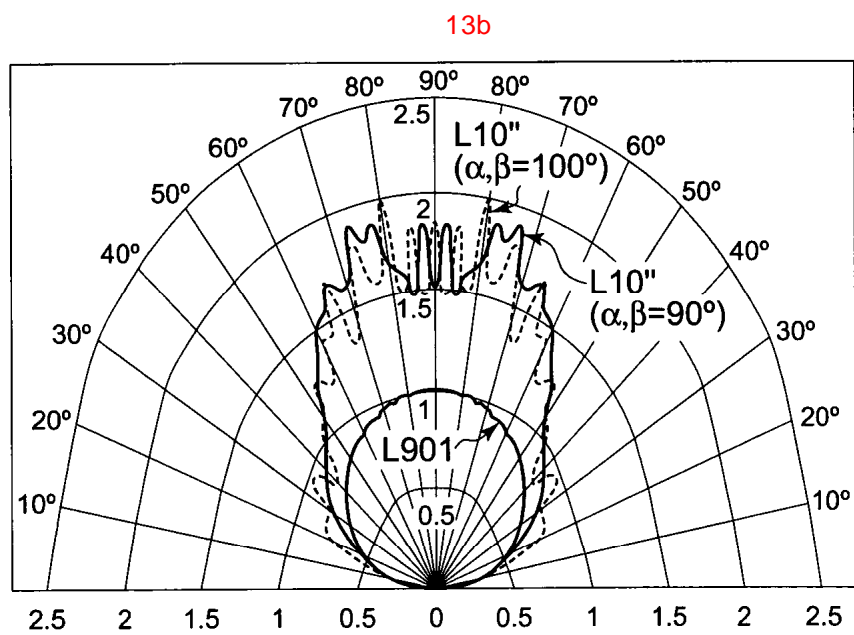
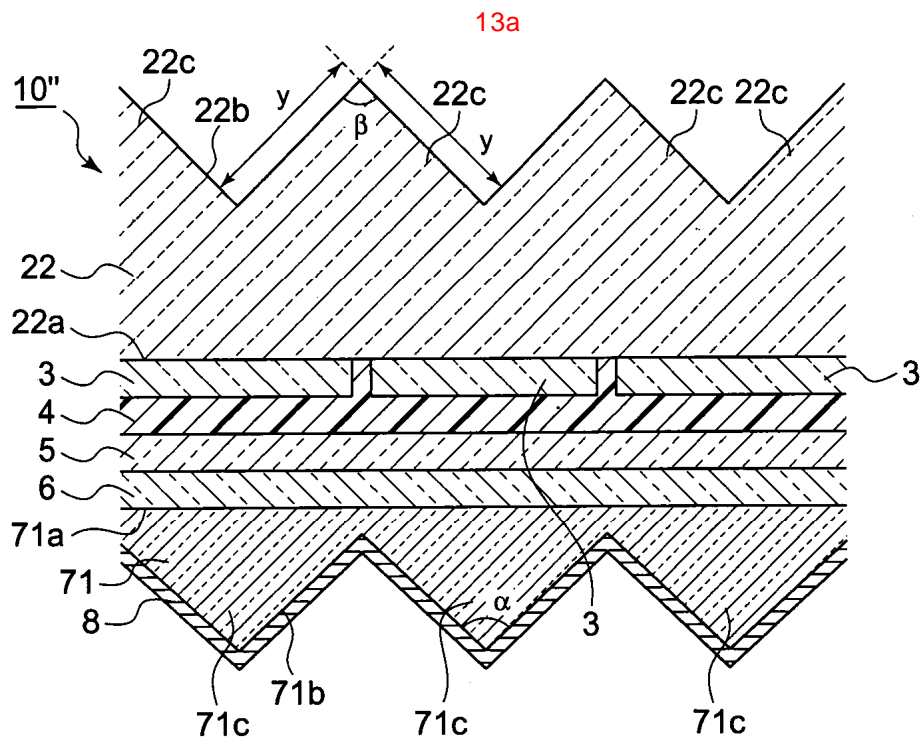


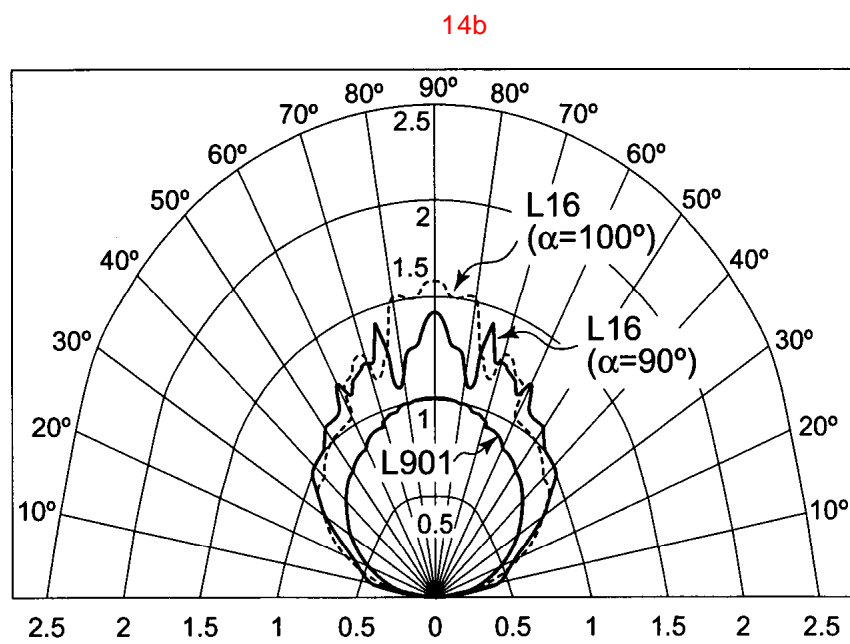
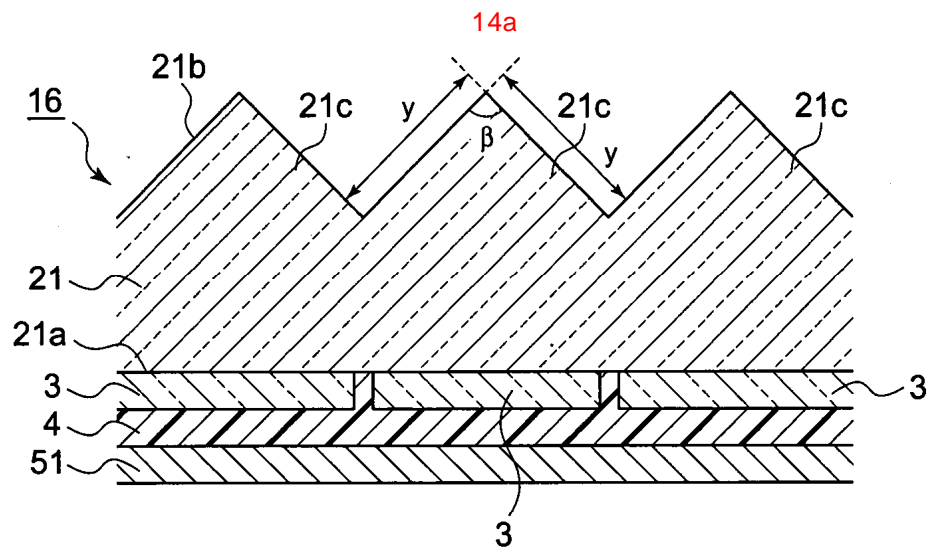


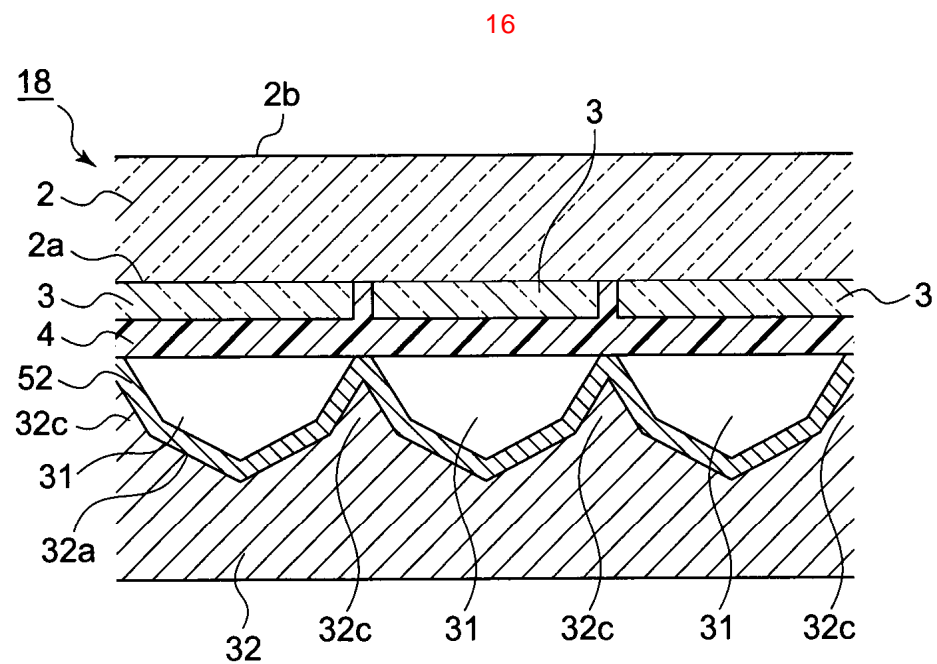
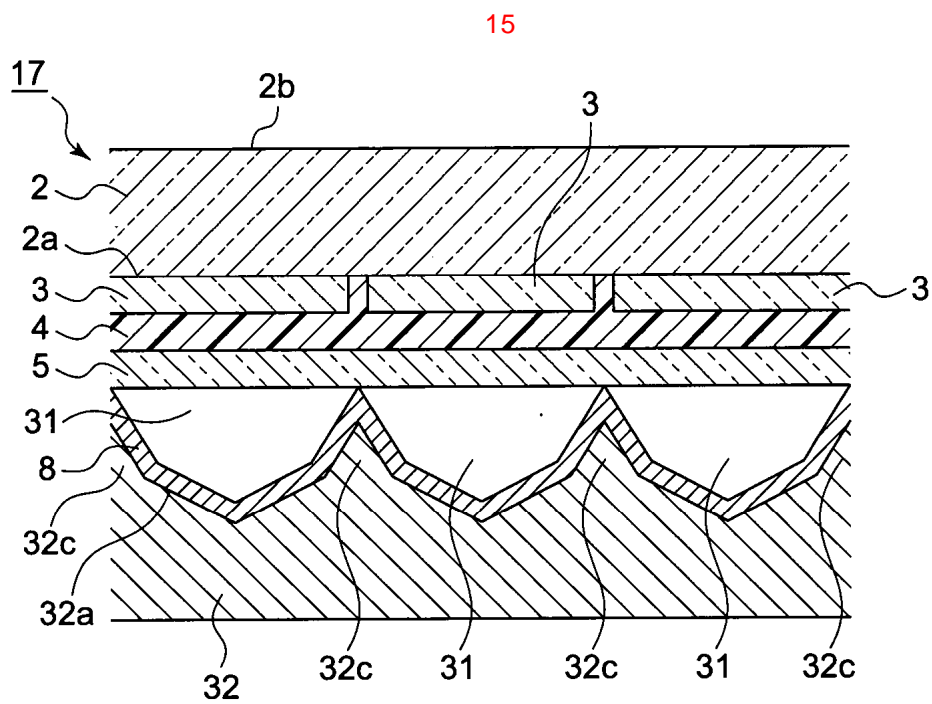




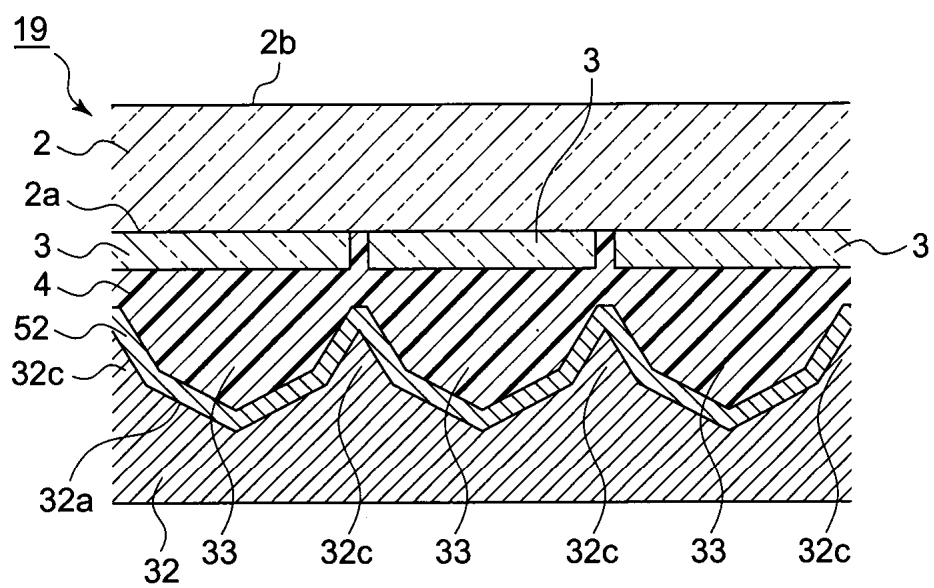




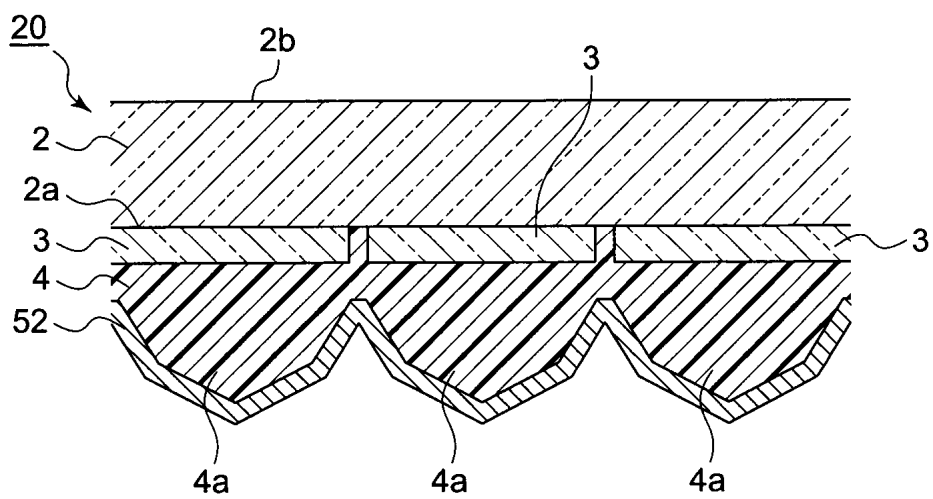




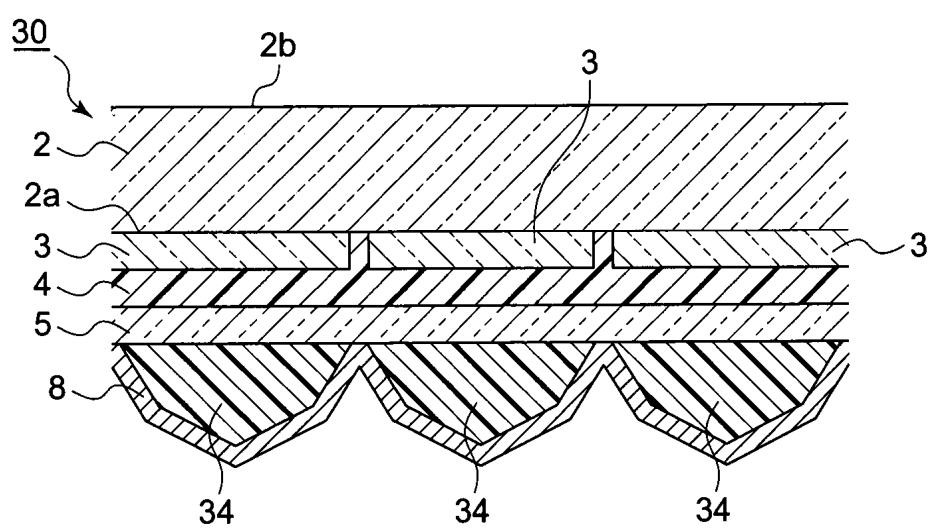
17



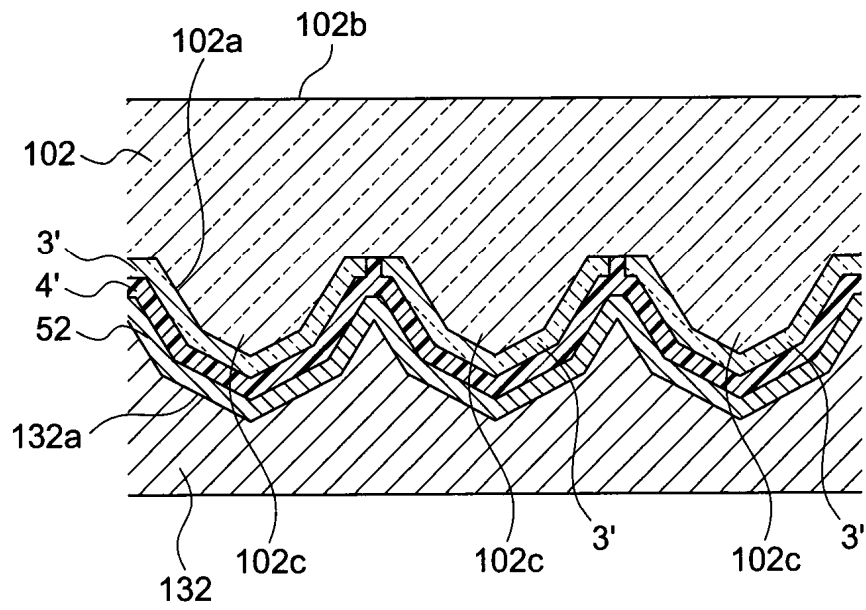
18



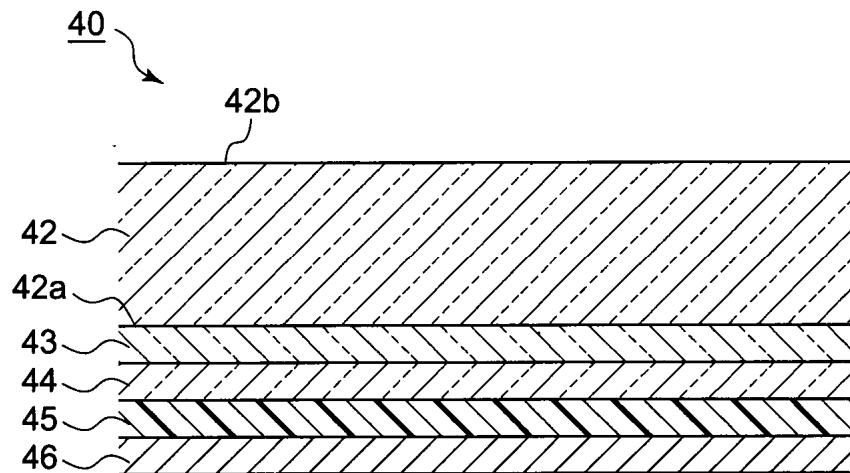
19



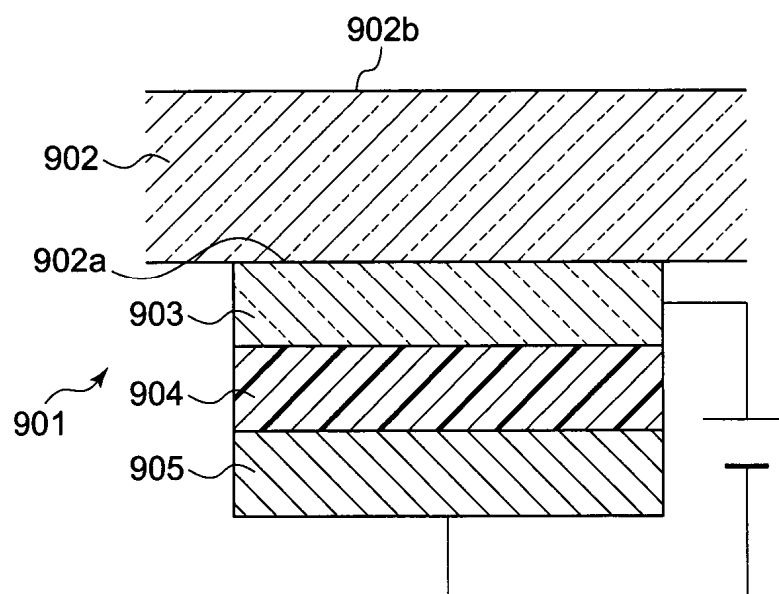
20



21



22



专利名称(译)	发光板		
公开(公告)号	KR1020040029433A	公开(公告)日	2004-04-06
申请号	KR1020047002149	申请日	2003-05-14
[标]申请(专利权)人(译)	卡西欧计算机株式会社 西伯利亚有限公司计算关键财富		
申请(专利权)人(译)	计算关键是否西伯利亚有限公司		
当前申请(专利权)人(译)	计算关键是否西伯利亚有限公司		
[标]发明人	TAKEI MANABU 다케이마나부 SHIRASAKI TOMOYUKI 시라사키도모유키		
发明人	다케이마나부 시라사키도모유키		
IPC分类号	H01L51/50 H05B33/22 H05B33/28 H05B33/26 H05B33/24 G02F1/13357 H01L51/52 H01L27/32 H05B33/02		
CPC分类号	H01L51/5221 H01L51/5281 H01L51/5275 G02F1/133603 H05B33/28 H01L51/5271 H01L27/3295 H01L51/5225		
代理人(译)	孙某EUN JIN		
优先权	2002138285 2002-05-14 JP		
其他公开文献	KR100581272B1		
外部链接	Espacenet		

摘要(译)

发光板包括透明基板，设置在透明基板上的第一透明电极，设置在第一透明电极上的发光层，以及设置在发光层上的第二透明电极。设置在第二电极上的反射膜通过第二透明电极反射从发光层发射的光，并允许反射光从透明基板发射到外部。图1a 指数方面 有机EL，发光板，显示器，亮度，透明基板，透镜，锥体，反射膜

