

(19)
(12)

(KR)
(A)

(51) 。 Int. Cl. ⁷
G02F 1/1335

(11)
(43)

2001 - 0083302
2001 09 01

(21)
(22)

10 - 2000 - 0006225
2000 02 10

(71)

.

,

20

(72)

313 - 1

212 - 807

(74)

:

(54)

(order parameter)

3

1

2a 2b / ,

3

4a 4b ,

5a 5b / /

,

6a 6b 3 가 ,

7 2 ,

8a 8b 7 가 .

< >

111 : 113 :

115 : 117 :

119 : 121 :

123 : 124 :

,
.

(transmission type) (reflection type)

,

(black) (white) .

, (power consumption)가 ,

가 . .

1 .

, (15)가 (13) , (16)
(11) , (13) (11) (19) . (19)

(19) 가 .

(13) (11) .

(13) (23) (25) .

(23) (right circular polarization : RCP) (left
circular polarization : LCP) , (25)

(13) (11) (twisted nematic liquid crystal
: TN) .

(TN)(19) 90° , $\lambda/4$ 가

, (on state) (off state)

, 2a () , (off state)

, A) (25)

B) (23) ,

C) (19)

D) (16) (19) E)

(TN)(19) $\lambda/4$

(23) F) (23) (25)

,

(white state)가

, 2b , (19) 가

가 , 가

(1 113) (19)

, A) (25) B) (23)

() C) , D) (16)

E) (19) F) (23)

(25) G) (25)

(25)

, (1

15) , 가

,

가 (25) 가

(15) 가

(display)

가

(order parameter)

0.5 0.9

0.3 0.8

0.4 0.9

(order parameter)가

가

가 $\lambda/4$
(order parameter)가

3

(111)

(113)

(111)

(113)

(115)

(111) (121) (123) (negative
 uniaxial film)(119) , (113) (111)
 (cholesteric liquid crystal color filter)(117) , (117)가
 (black layer)(124) .
 , (117) () ,
 (111) () .
 (115) 가 .
 가 , , 가 ,
 .
 (117) ,
 .
 , 가 ,
 .
 , (117) (pitch) ,
 (pixel) 가 400 700nm , 가 660
 nm , 530nm , 470nm . 가
 , R/G/B 가 .
 , (color shift) 가 ,
 가 .
 (order parameter)
 .
 가 (normal direction) ,
 가 .
 , 가
 .
 , 가
 .
 가 가
 , , 가
 .

(1)

" S"

$$S = \frac{1}{2}(3\cos^2 \Theta - 1) \quad (1)$$

(1)

 Θ

()

, S="0 "

(等方性)

S="1 ."

가

4a

4b

4a

S="1 "

(112a)가

4b

(112b)가

S="1 "

가

0 1

(112b)

가 0 1

(red)/ (green)/ (blue)

(color shift)가

5a

5b

/ /

5a

(213)

/ /

()

(211)가

5b

(213) 0.5 0.9

0.4 0.9

0.3 0.8

(211) 가

가 1

가 1

가

(117)

6a (off state)

(45°) (3 111) A) (123) (123)
 (121) B) (121)
 (111)(113) (3 119)
 C) (115)
 (115) (115)
 ??) (117) E) (124)

가

(3 119)
 가 (115) (121)

(3 119)
 (123) (121) 가
 (121) (121)
 (115)

가

(3 119)

6b (on state)

(115)
 A) B) (121)
 (3 119) C) (115)
 (115)
 D) (117)
 E) (121) (123) (45°)
 (121)

(3 119) 1 가 ,

가 IPS(In Plane switching)

가 .

-- 2 --

2 가

IPS .

IPS ,

7 IPS , 2

가 , (311) (313) (315)

(315) (313) 1

가 (319)가 .

(313)

가 , (311) (318)(negative uniaxial film) (321)

(313) (black layer) (323) .

1

(323)

(polymer)

8a 8b / ,

8a) B) (315) A) (321) (7 318

C) $\lambda/4$ 가

D) (311)

(321) $\lambda/4$ (319)

(311) , (321)

가 .

8b , IPS 90 °

A) (321) (7 318) (315)

C) (319) (323)

가 (7 318)

1 , IPS

가 .

가
가 .

(57)

1.

;

;

;

;

;

,

/ /

(order parameter)가

가
;

;

2.

1 ,

가

3.

1 ,

가

4.

1 ,

0.5 0.9

5.

1 ,

0.3 0.8

6.

1 ,

0.4 0.9

7.

1 ,

8.

;

;

;

;

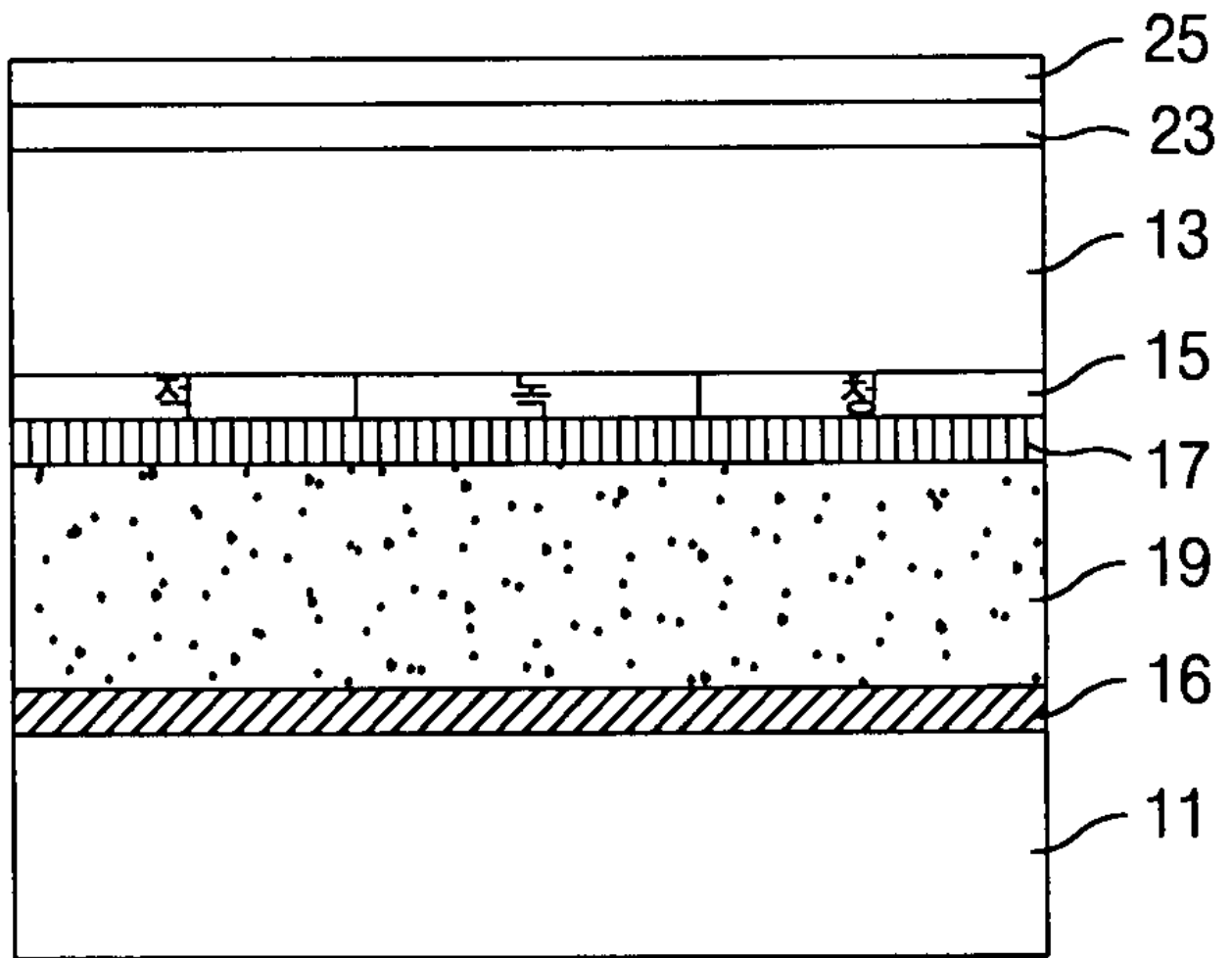
/ /

(order parameter)가

가
;

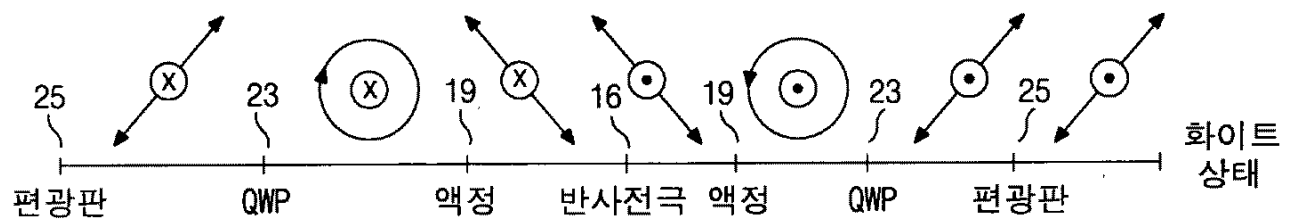
가 ;

1



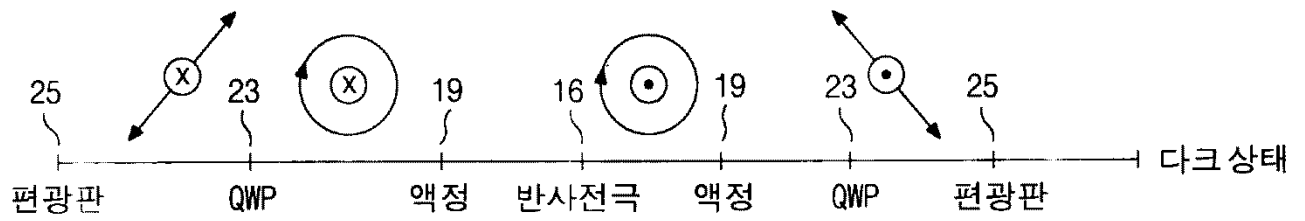
2a

(오프 상태 : 관측자의 위치고정)

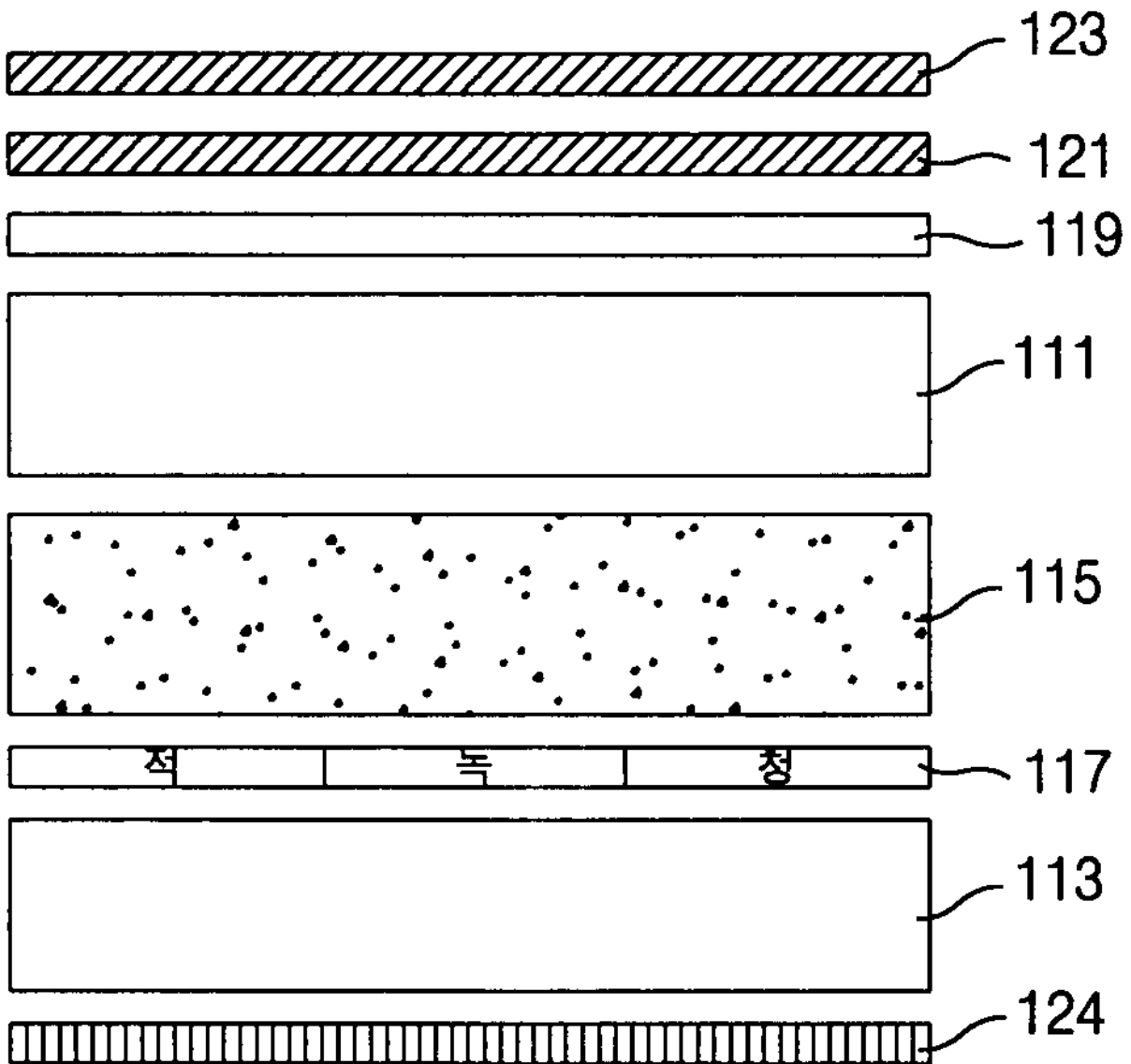


2b

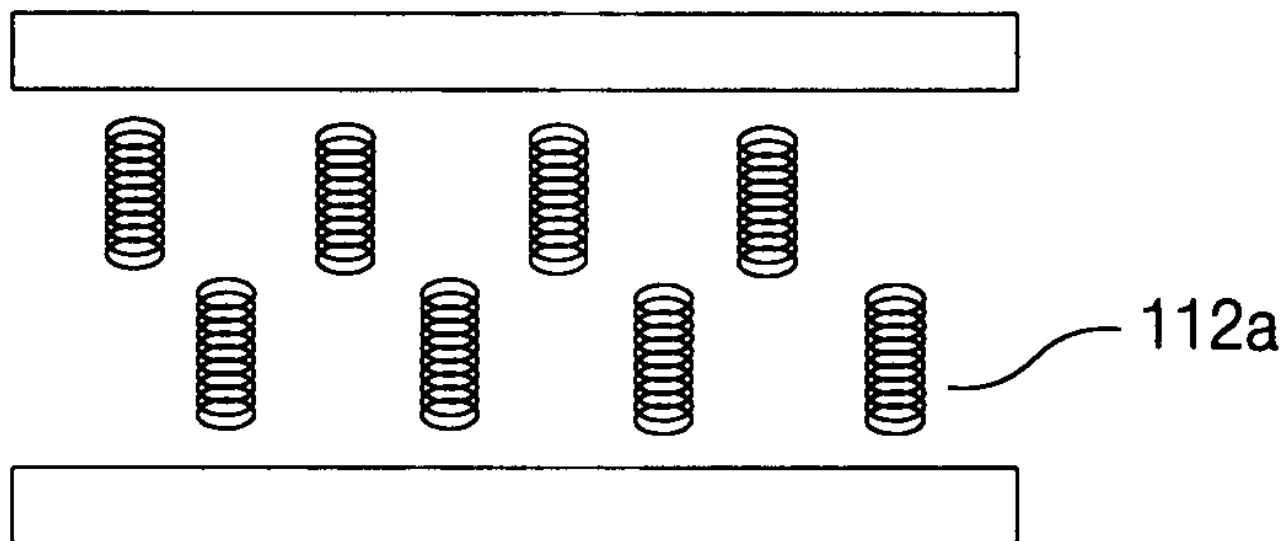
(온 상태 : 관측자의 위치고정)



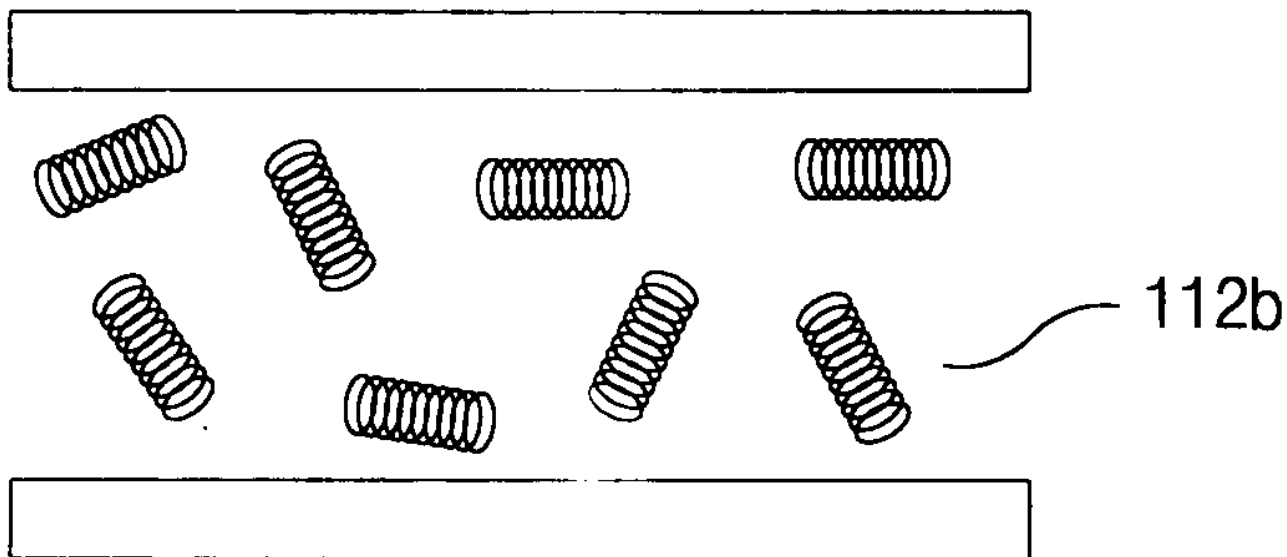
3



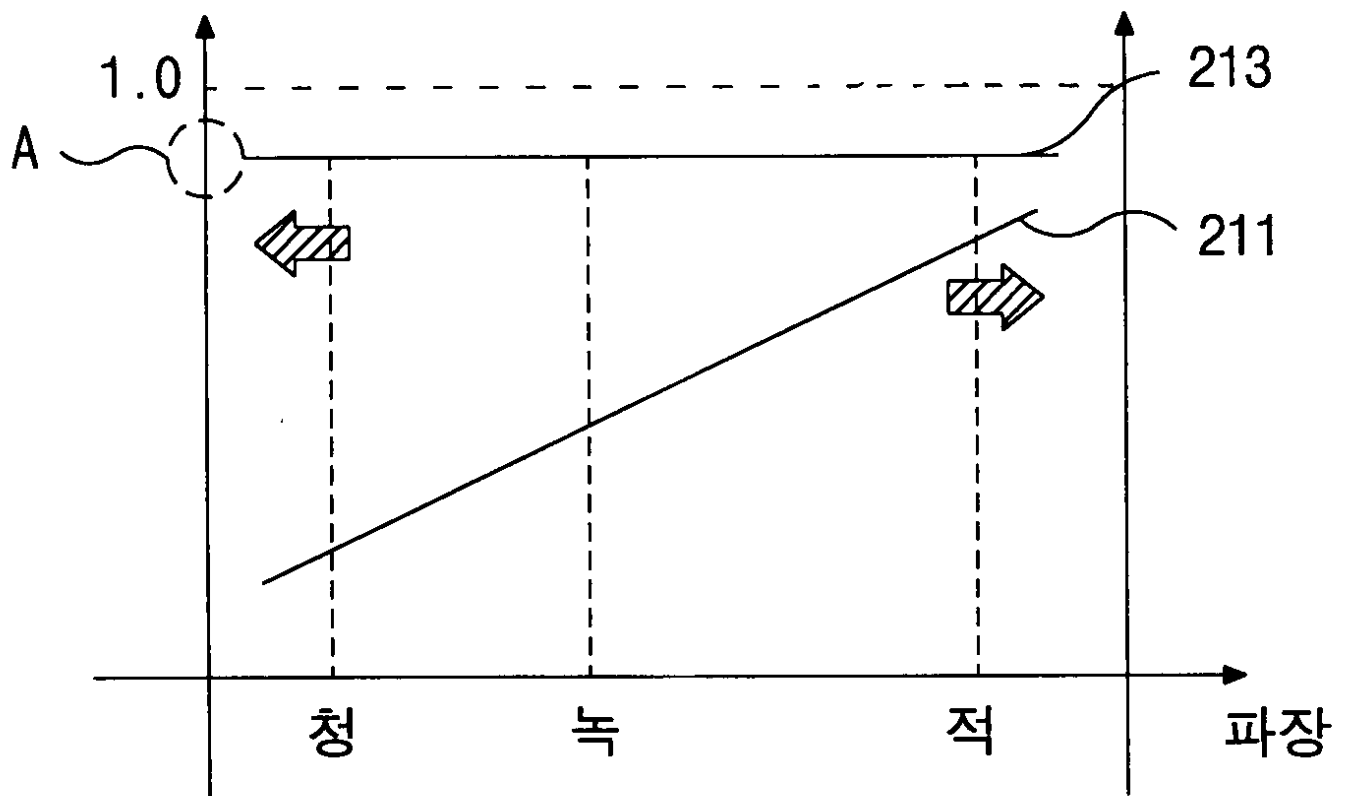
4a



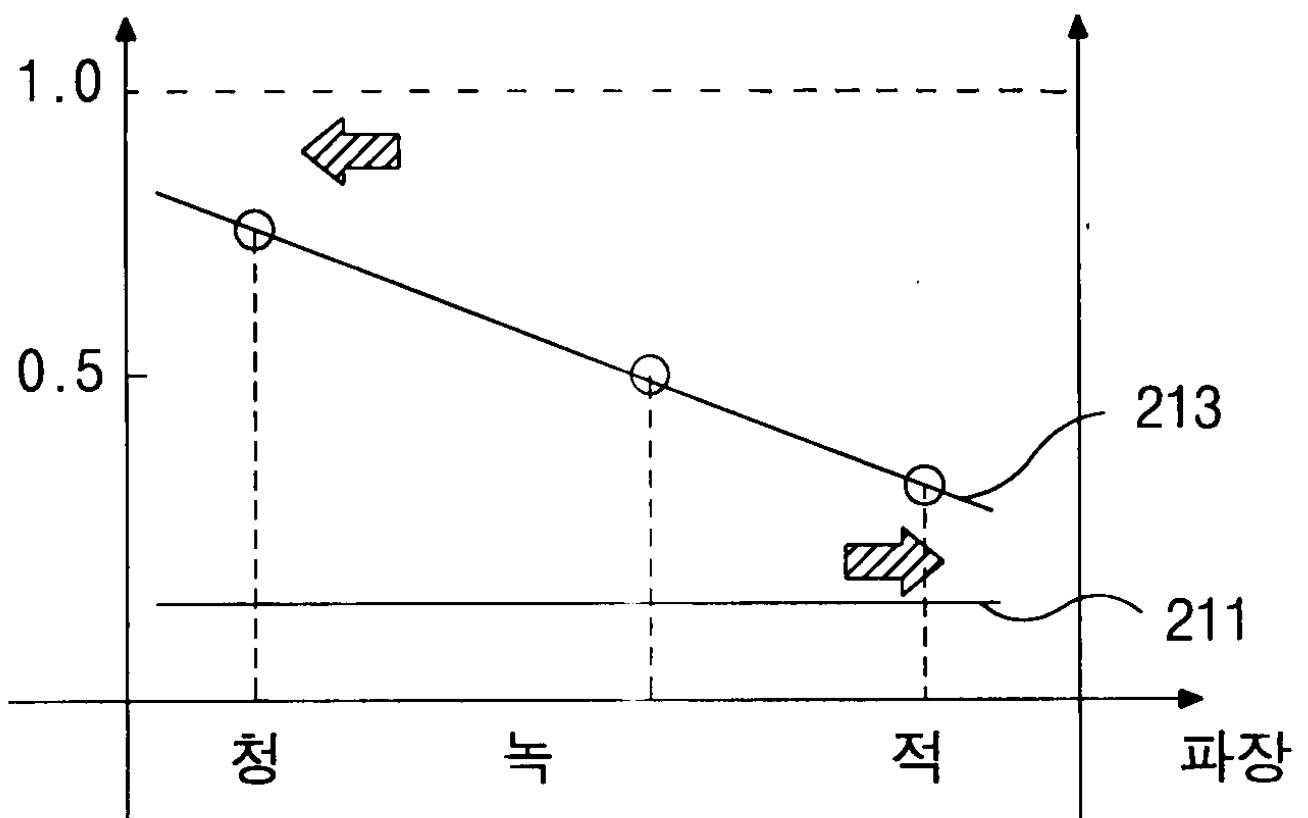
4b



5a

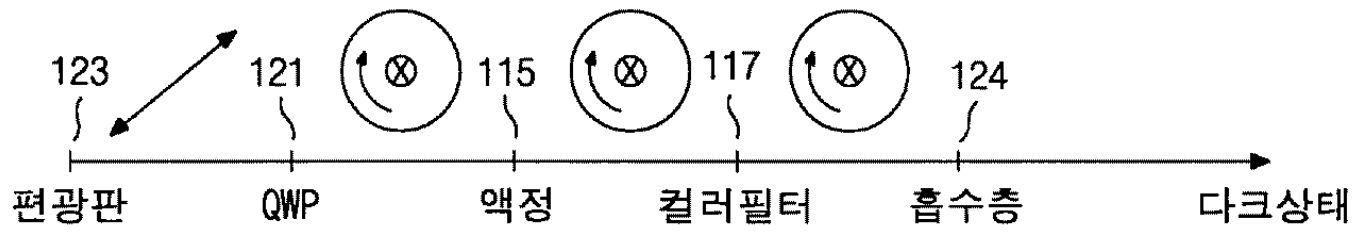


5b



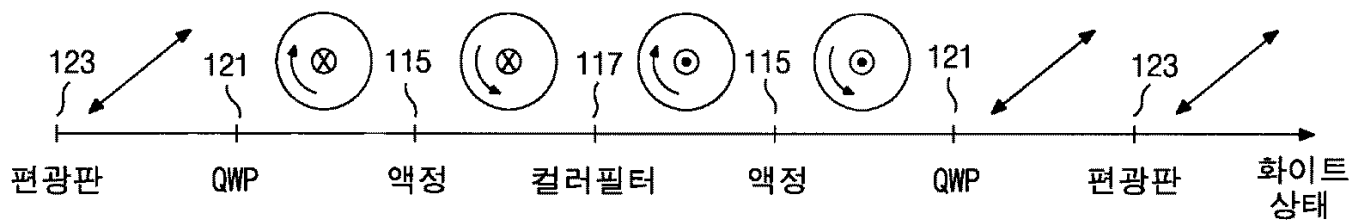
6a

(오프 상태)

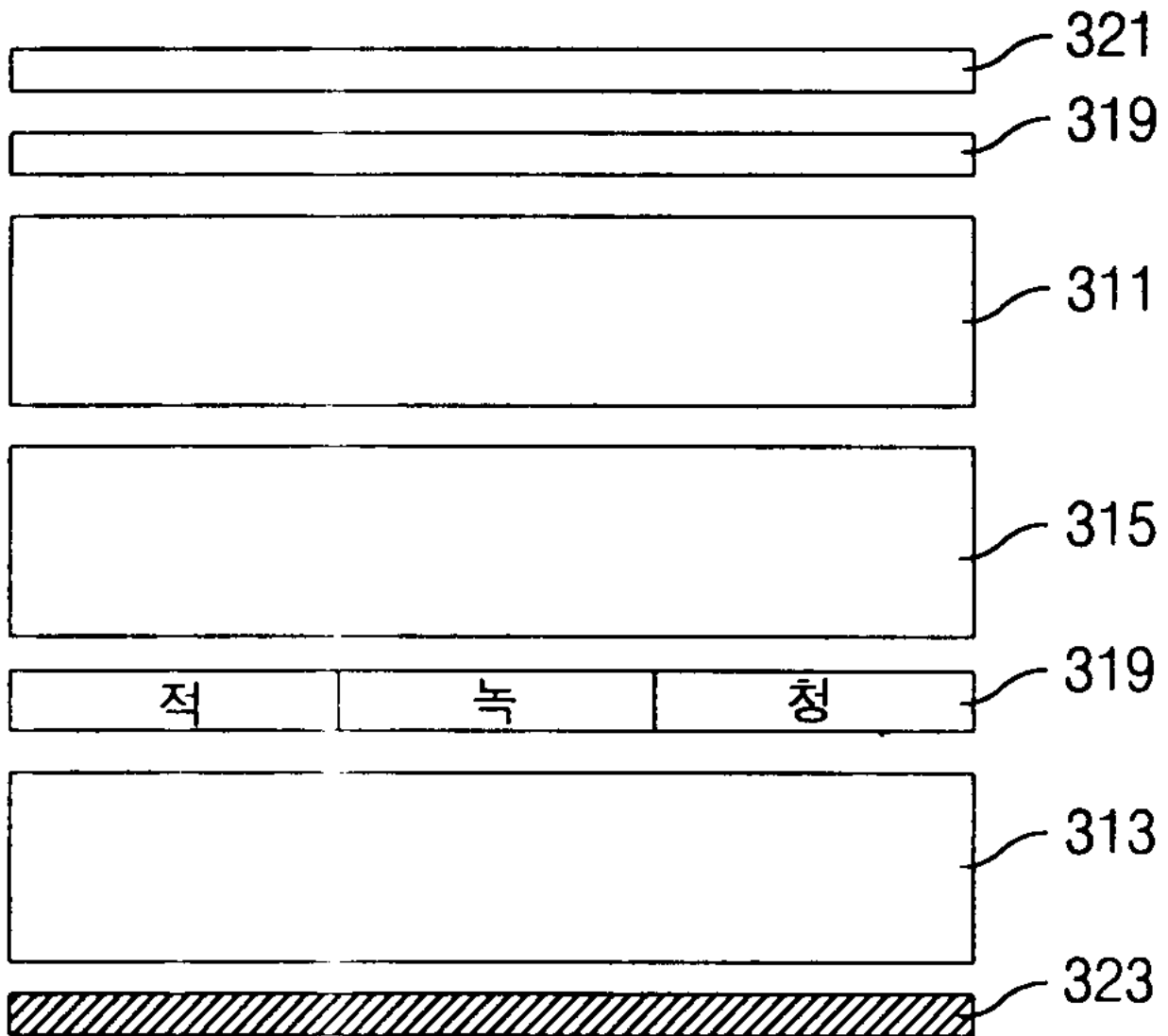


6b

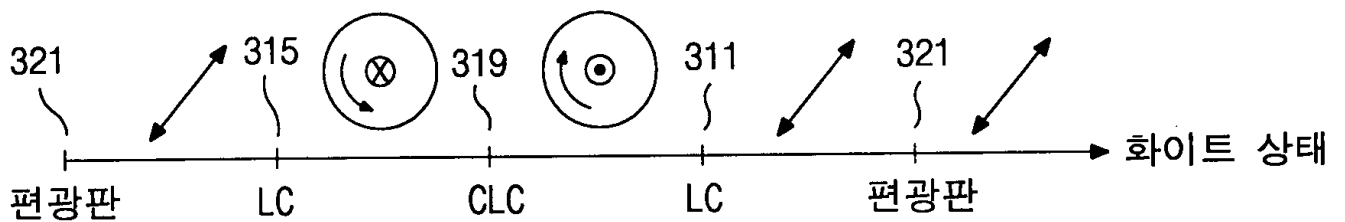
(온 상태)



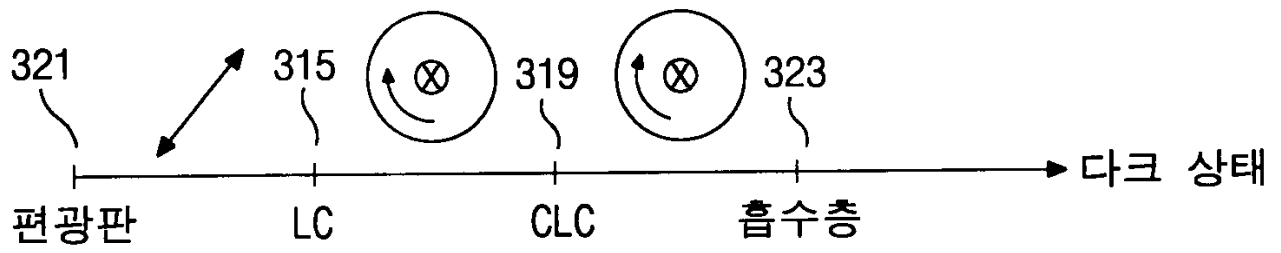
7



8a



8b



专利名称(译)	具有胆甾型液晶滤色器的反射型液晶显示装置		
公开(公告)号	KR1020010083302A	公开(公告)日	2001-09-01
申请号	KR1020000006225	申请日	2000-02-10
[标]申请(专利权)人(译)	乐金显示有限公司		
申请(专利权)人(译)	LG显示器有限公司		
当前申请(专利权)人(译)	LG显示器有限公司		
[标]发明人	KIM YONG BEOM		
发明人	KIM,YONG BEOM		
IPC分类号	G02F1/13 G02F1/1335		
CPC分类号	G02F2203/02 G02F1/133516		
其他公开文献	KR100691320B1		
外部链接	Espacenet		

摘要(译)

本发明涉及采用胆甾型液晶滤色器的反射型液晶显示装置。并且，控制包括胆甾型液晶滤色器的胆甾型液晶分子的有序参数的有序参数，并且可以制造具有高对比度和高色纯度的具有宽视角的液晶显示器。

