

(19)
(12)

(KR)
(B1)

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H01L 21/027

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(11)
(24)

2001 09 26
10 - 0303057
2001 07 07

(21) 10 - 1999 - 0001985
(22) 1999 01 22

(65) 2000 - 0051488
(43) 2000 08 16

(73)

3 416

(72)

18 - 12 2 204

(74)

:

(54)

가

가

1 ;
 2 ;
 3a 2 ;
 3b 2 ;
 4 ;
 5a 5b 2 ;
 6a 6b .
 *
 10 : 12 : 1
 14 : 2 16 : 1
 18 : 2 20 :
 22 : 24 :
 26 :

(step - and - repeat) (step - and - scan)
 (semiconductor elements), (liquid crystal elements)
 (substrate)
 (master plate) (masks) (reticles)
 (photoresist layer)
 (optical image) 가
 (patterning) (;focussing) (;levelling)

2

가
가

가

가

6a 6b

6a 6b
 220) (216,226) 가 (200) 2 (210,220) 1 (212) (210,
 2 (222) 45 60 , 1 (212) 2 (222) 80% .
 (256) (200) (250) (252) 1 (254) 2
) (250) (214) 2 (224) , 1 (214) 2 (22
 4) (250) (258) 2 (256) 가 2 (256) 1 (254) 가
 1 (254) 2 (256) , 1 (254) 2
 (224) 1 (214) 'A' 가 (200) 1 (21
 4) 2 (224) , (250) (250)

(metallic layer)

(poly layer)

가

(258)

()

(noise)

(214,224)

가

2

(defocus)가

2

가

가

2

1 4

1

1
(10)

(10)

(10)

, 2

(28)

(10)
(24)

(28)

(24)
(26)

(10)

(10) , , . 1 (12) 2
 (14), (19) , ,
 1 (12) 2 (14) (26)
 가 . 1 (12) 2 (14)
 (26) (19) 가 . 1 (12) 2 (14)
 (14) 1 (16), 2 (18), (20)
 (19') . 1 (16) 2 (18) , 1 2 (12,14) ,
 (19') 가 (12,14) (16,1
 8) , (19,19')

(10) (26)가 (26)가

1 (12) 2 (14) (24) (26)
 1 (16) 2 (18) . 1 (16) 2 (18)
 , (22) (24) (20) . (22) (20)
 (24)

2 3b

2 3b , (30) (32) (38)
 , (36) (46) (44) , (42) (42)
 (40) (38) (44) , (42) (40)
 (52) (50) , 3a 3

b 가 (42) (32) (38) (38) (30) 1.5
 , (34) (38) 가 3a 3b
 , (38) (34) (34)
 , 3a 3b (30,32) (34) (38)
 , 3a (34) (reflectanc

e) (50) (transmittance) (50) , 3b (34)
 (60) (62) .

2 3b (38) (50) (44) 75
 (52) 가 . , (38) (60) (44)
 80 (62) 가 . , (38) (44) 75
 90 , (38)
 4 , (10) (80,84) (90,94)

4 , 2 (10) 1 (12)
 2 (14) 1 (12) 2 (14) 1 (80)
 2 (84) (26) (26) (70) 1 (72) 2 (74) (26)
 (76) 1 (72) 2 (74) 가 ,
 (10) (76) 1 (82) 2 (86)
 (26) (80) 2 (84)
 1 2 (12,14) 가 1 2 (80,84) (90,92)
 (12,14) 가 (26) , 1 2 (12,14)
 2 (80,84) (90,92) 75 90 , 1 2 (12,14) 1
 (90,92) (76) ,

5a 5b 2

5a 5b , 2
 (5b)가 (26) (5a) (scanning)
 (26) X, Y, Z
 가

5a , (26)가 (100,102,104)
 가 (100,102,104)
 (104) (26) (100,102)
 (100,102,104)

5b , (26)가 (110,112,114,116)
 4,116) (114,116) 가 (110,112,11
 (26) (110,112)
 (110,112,114,116)

2

2

2

(57)

1.

;

;

/

5.

1

8.

;

;

/

9.

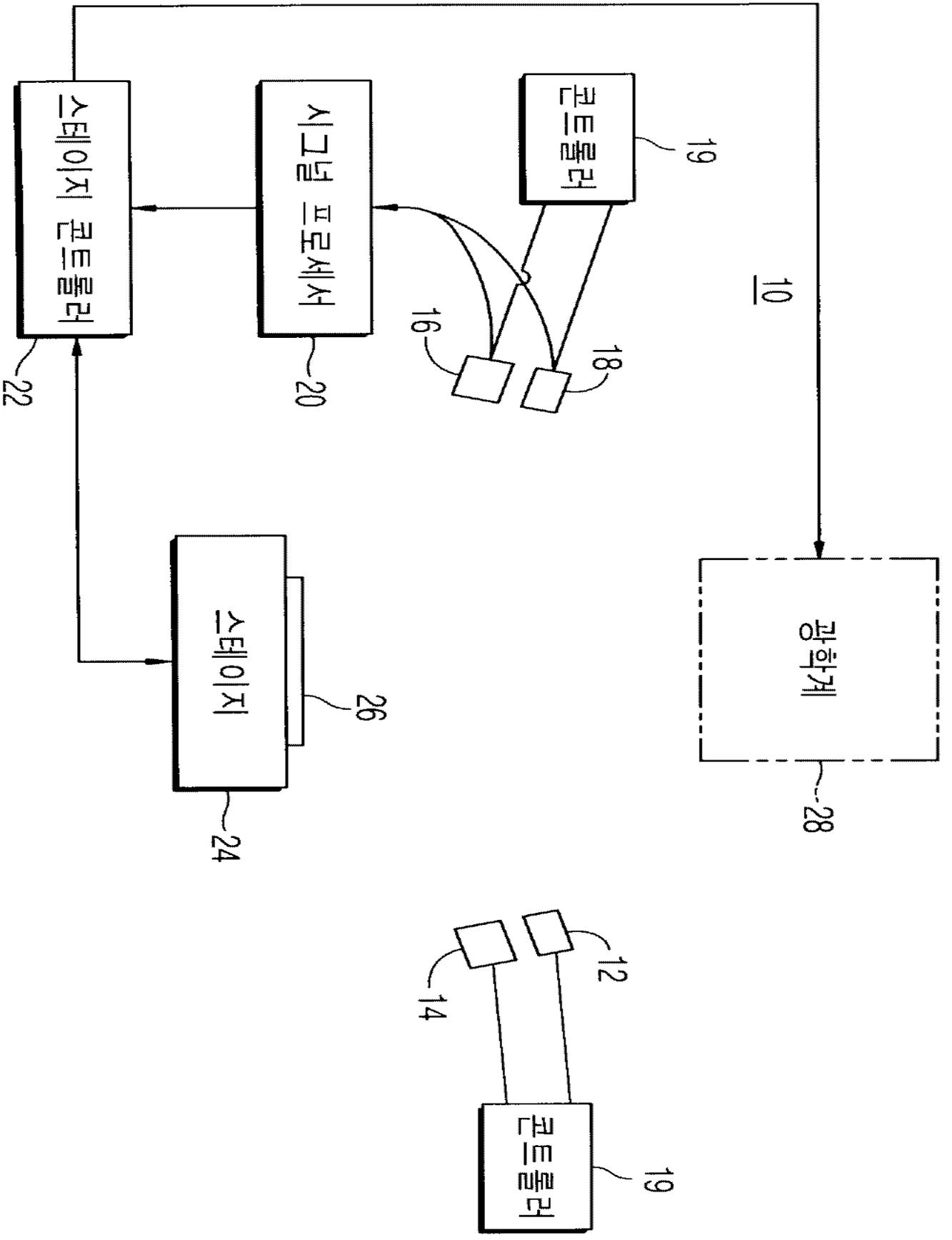
8 ,

가

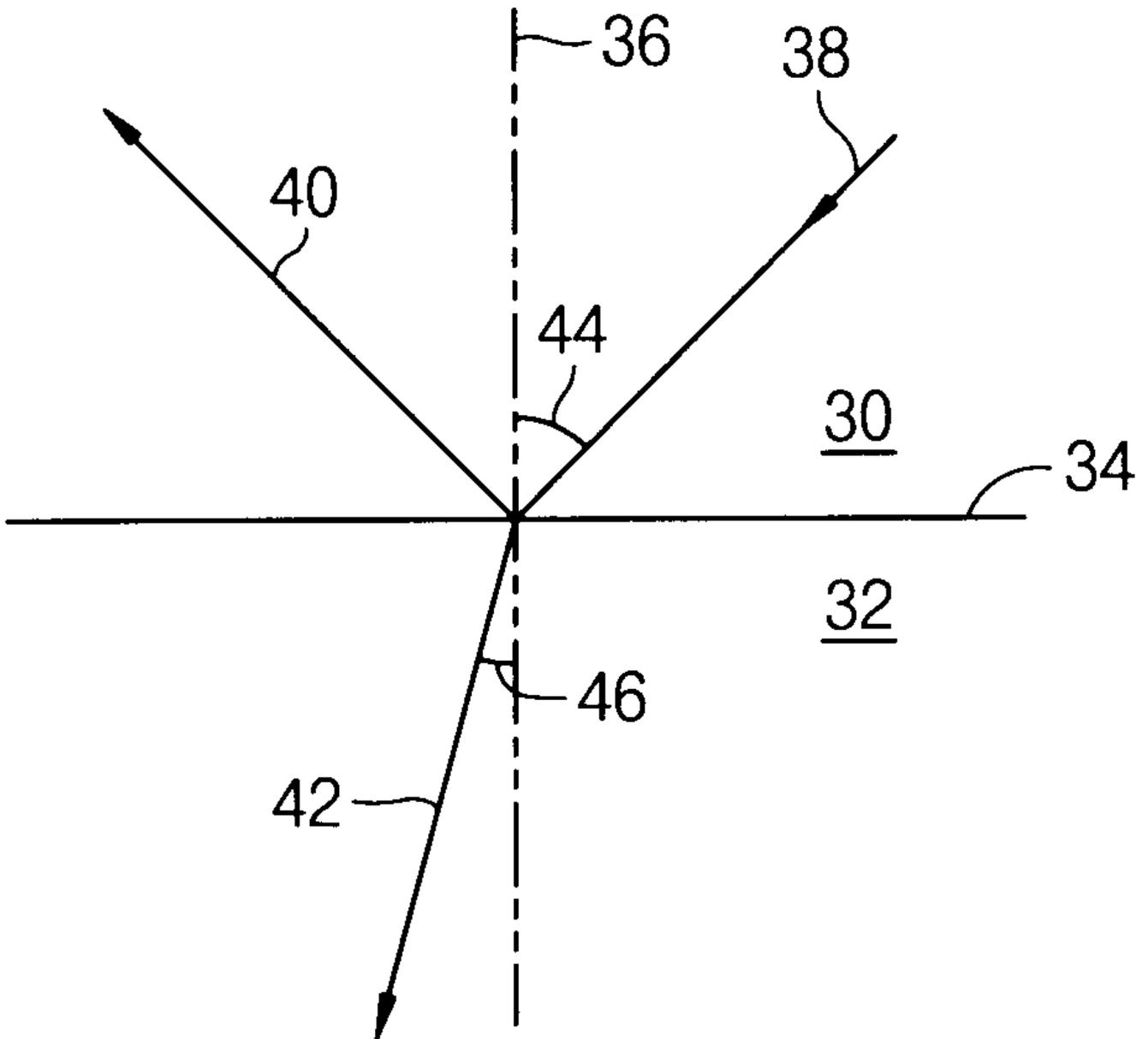
10.

8 ,

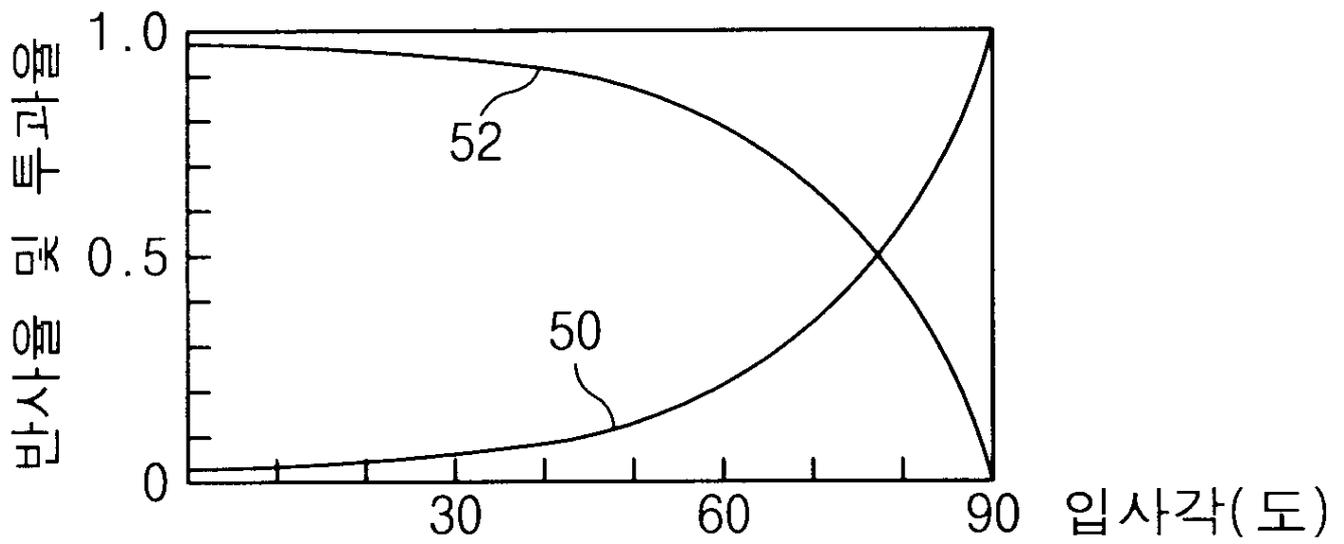
1



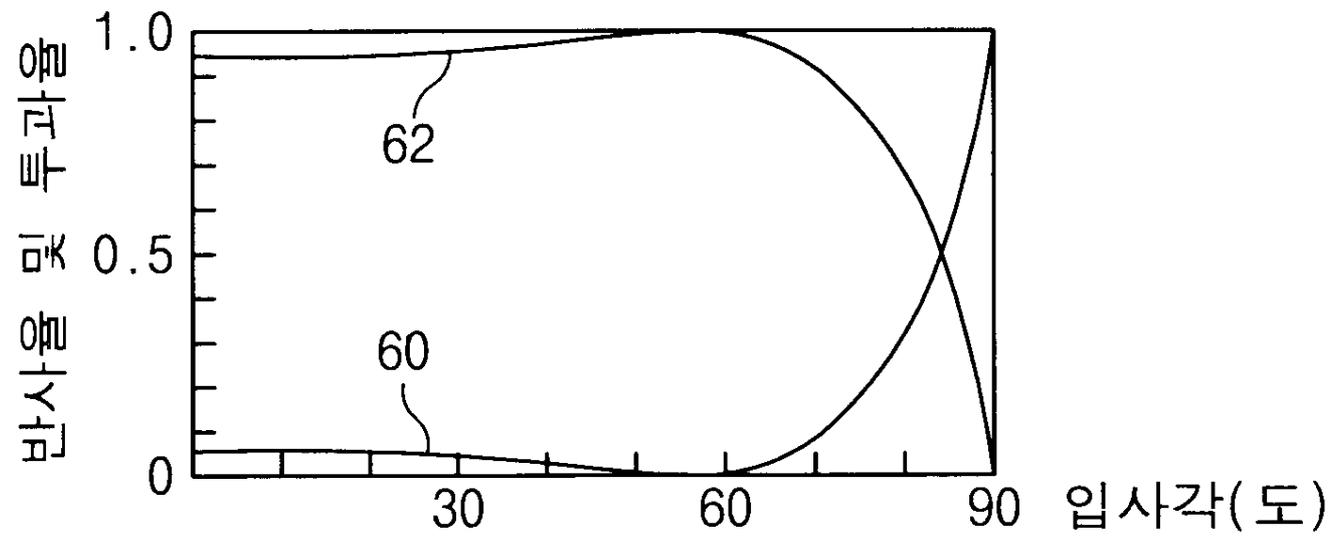
2



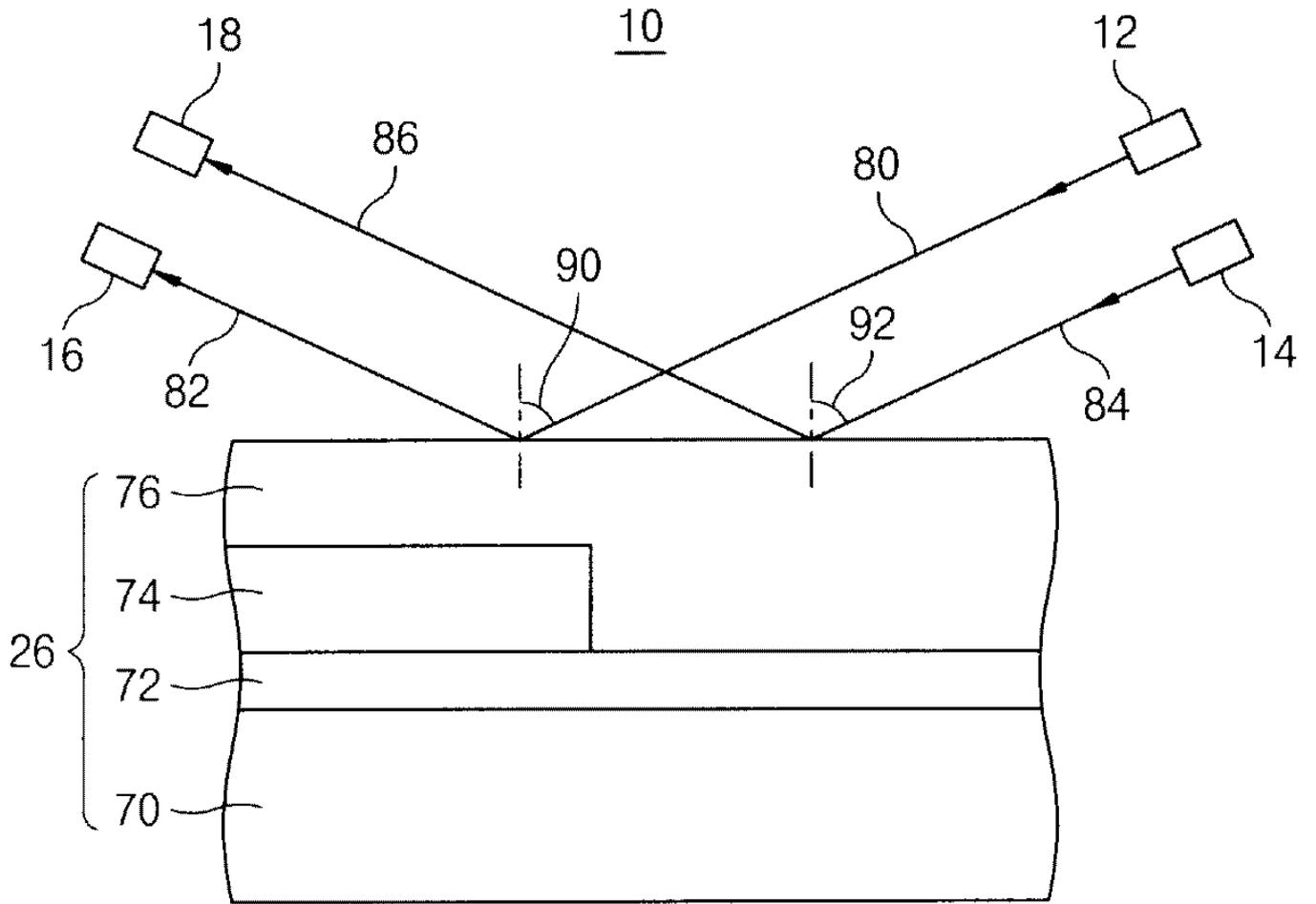
3a



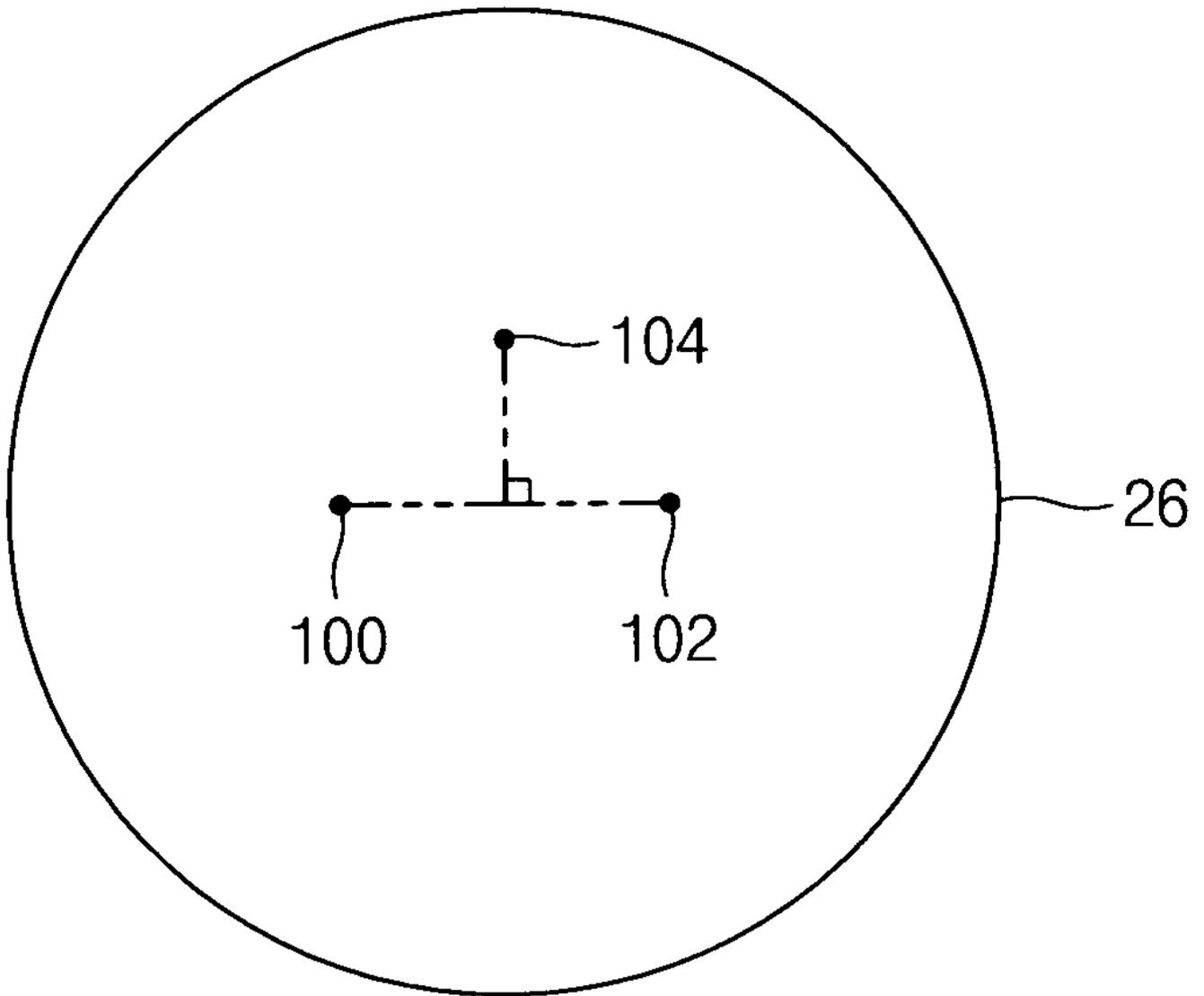
3b



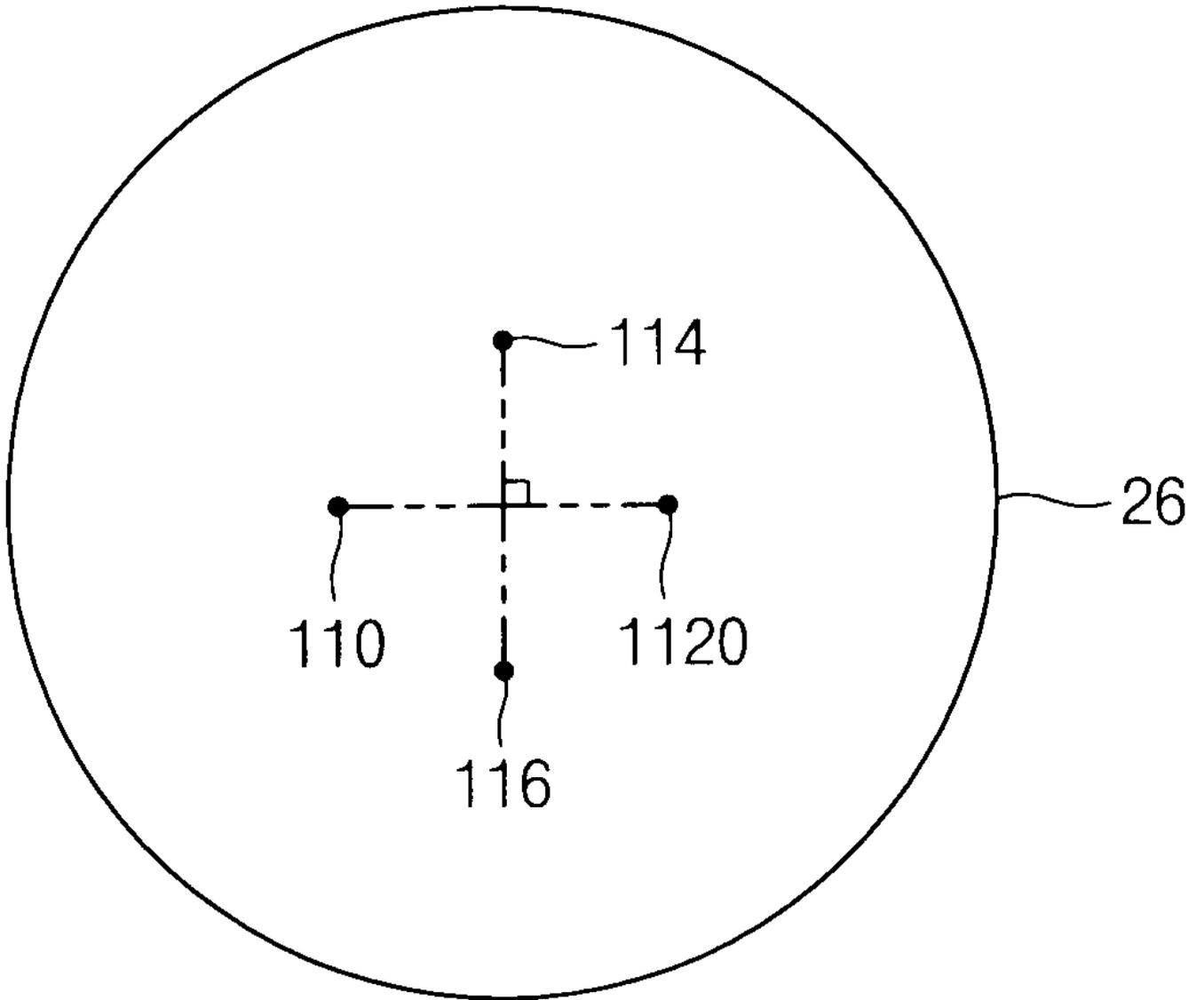
4



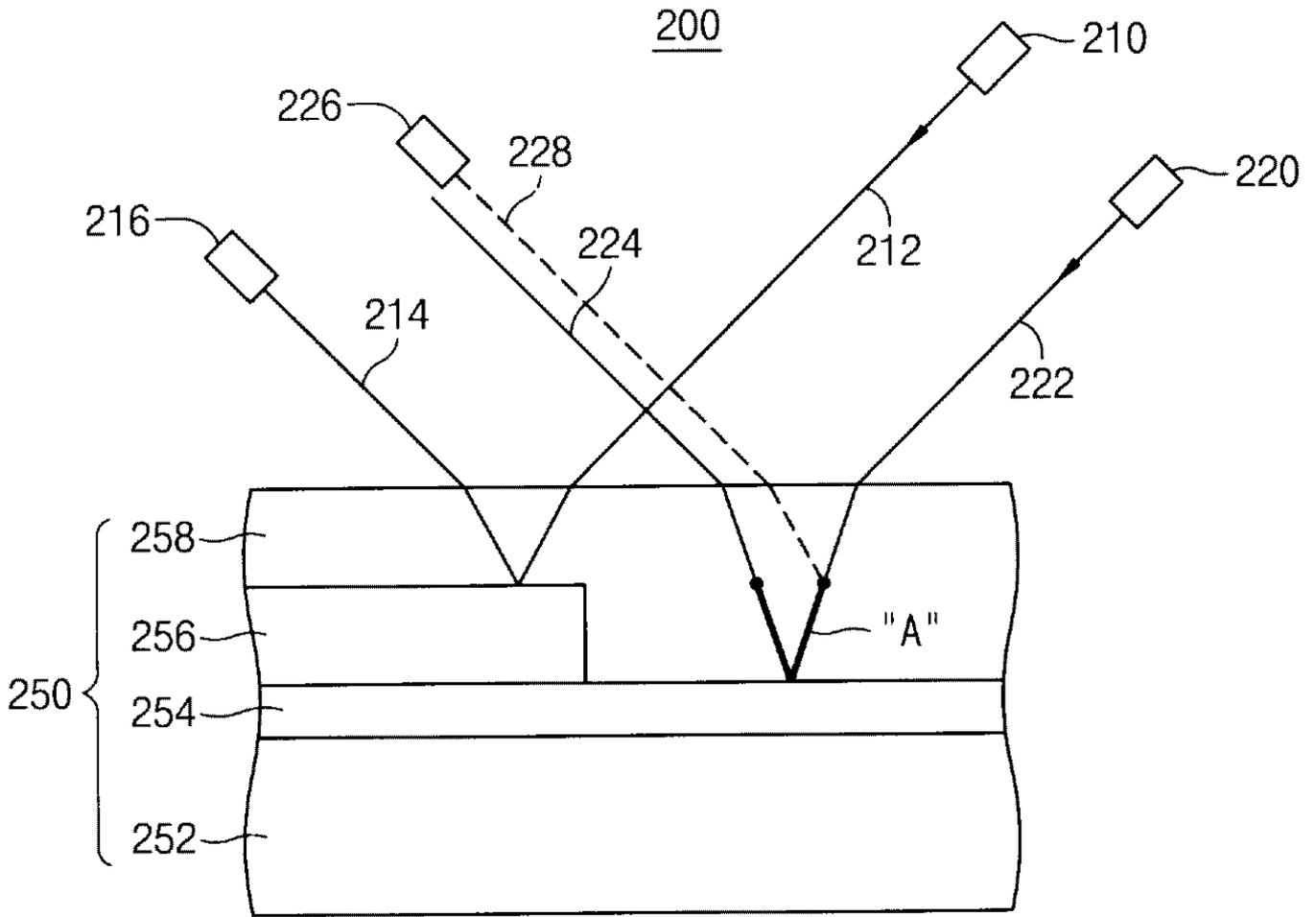
5a



5b



6a



6b

