

(19)
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(11)
(43)

10-2004-0089836
2004 10 22

(21) 10-2003-0023650
(22) 2003 04 15

(71) . 20

(72) 78-2

(74)

:

(54)

가

가

6

(Photonic crystal ball),

1

2 1 |~|'

3

4 3 ~ '

5

2 (R, G, B) , , 가 가

(Active Matrix LCD)가

가

가

가

5,610,741 (: Reflection type Liquid Crystal Display Device with bu
mps on the reflector)

1 , 2 1 |~|' .
1 , (2 10)
(11) (12) , (13) , (11)
(12) (11a), (14), / (12a, 12b)
가 .
(13) 가 (11a) 가
(13) (Al) , (Ag) , , ,
(2 20)
, 2
2 , (10) (1 11
) (11) (11a)
, (11a) (10) (15) .
, (15) (11a) (14) .
, (11) (12) , (14)
/ (12a, 12b) (12b) , (12a) (12)
, (12b) (12b)
, / (12a, 12b) (10) (16) .

, (16) , (12b) (13)
 , (12b)

, (13) (12b)
 가

, (10) (20)
 (21)

, (21) (22)

, (22) (23)

, (20) (diffusion plate)(24) (13)
 가 , (13)
 , (20) (24) (24)

, (10, 20) , (10, 20) (30)
 (24)

가 ,

3 , 4 3 ~ '

3 , (4 10) (Pit)(18)
 (11) (12) , (11a),
 (14) (13) , (11) (12) 가
 / (12a, 12b)

, (13)
 (18)가

4 , (13) (18) (20)
 (24) , 2

(18)가 가

가 가

가

가

R(Red), G(Green), B(Blue)

가

1, 2, 3

1, 2, 3

R, G, B 가

1, 2, 3

가

가

R(Red), G(Green), B(Blue)

가

1, 2, 3

1, 2, 3

R, G, B 가

가

1, 2, 3

5

5

2a, 52b)

(51)

(52) 가

(51)

(6 50)

(52), (51a),

(6 60)

(54),

/

(53) (5

(53)

가

(51a) 가

(53)

가

(53)

, ITO(Indium Tin Oxide) IZO(Indium Zinc Oxide)

1, 2

6

1

5

~

,

7 6

6

1

(61)

(60)

(50)

(TFT)

(TFT) 가

(56)

1

(56) (50) (TFT) (TFT)가 가 (56) (TFT)

(56) (50) (57)

(51a) (50) (51) (51)

(51a) (50) (55)

(55) (51a) (54)

(51) (52) (54)
 (52a, 52b) (52a) (52)

(52b) (52b) (52b) (52)

(52b) (53)

(50) (60) (61)

7 (61) (53) R(Red), G(Green), B(Blue)
 (resin) (Photonic Bandgap) 가 (nano particle)
 1, 2, 3 (61a, 61b, 61c)

1, 2, 3 (61a, 61b, 61c) (60)

1, 2, 3 (61a, 61b, 61c) (TFT)
 1, 2, 3 (61a, 61b, 61c) 가

(50, 60) (50, 60) (70)

(61) (53)
 (53)

(53) , ITO(Indium Tin Oxide) IZO(Indium Zinc Oxide)

1, 2, 3 가 (61a, 61b, 61c) 가

1, 2, 3 (61a, 61b, 61c) 가 R, G, B
 100% 가 가

1, 2, 3 (61a, 61b, 61c) 가

(61)

, R(Red) 가 1

1 G 가 2

1, 2 가 3

8 2 5 ~ ' .

8 2 1 , (TFT)가 (

60) .

(61) (61) (TFT) 가 (53)

2 (61) (60) ,

(50) 가 (56) .

2 (TFT)가 (60) 1

00% 가 , ' , ' 가 1

가 .

가 .

가 .

(photonic crystal ball) (nano particle) 100%

가 가 .

가

가 가

- (57)
1. ; 가 ; ; 가
 - 2.

1 ,

3.

1 ,

R(Red), G(Green), B(Blue) 가 1, 2, 3

4.

3 ,

1, 2, 3

R, G, B 가

가

5.

3 ,

1, 2, 3

6.

;

가

;

;

;

가

7.

6 ,

8.

6 ,

R(Red), G(Green), B(Blue) 가 1, 2, 3

9.

8 ,

1, 2, 3

R, G, B 가

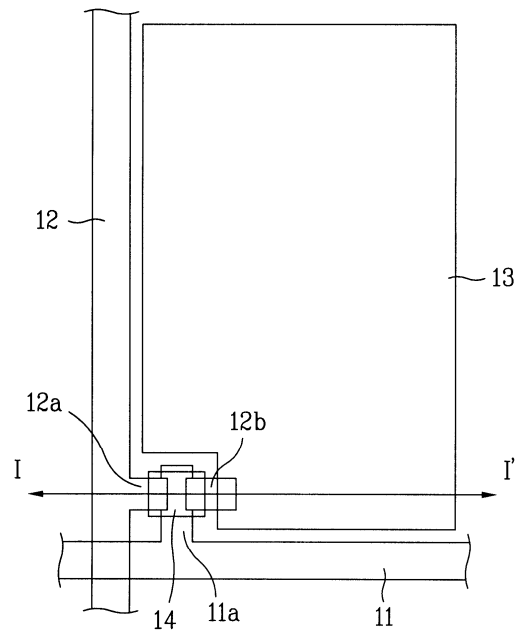
가

10.

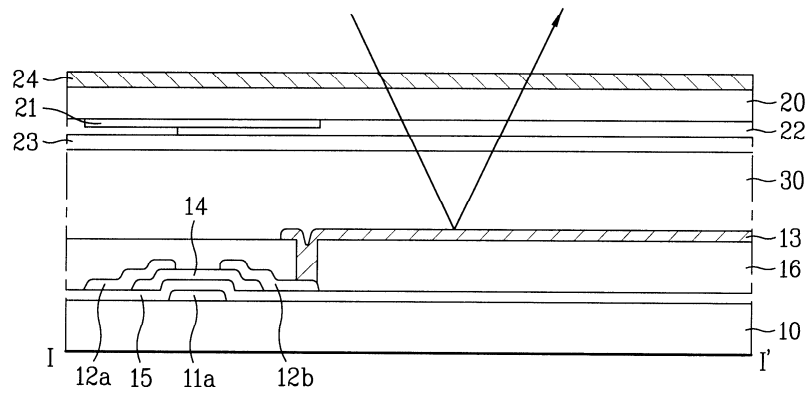
8 ,

1, 2, 3

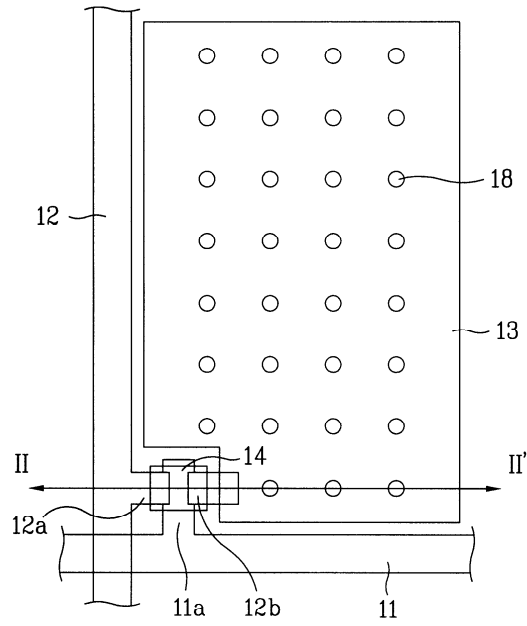
1



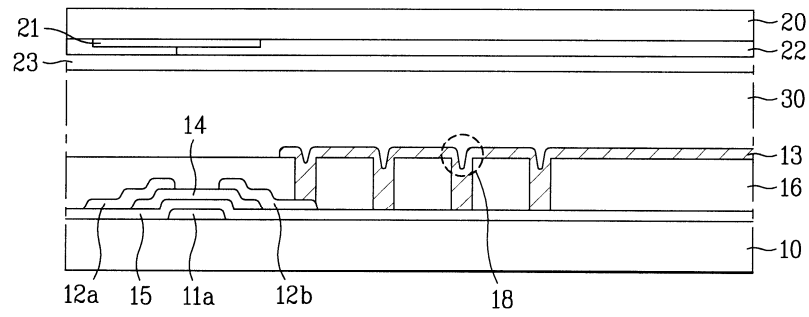
2



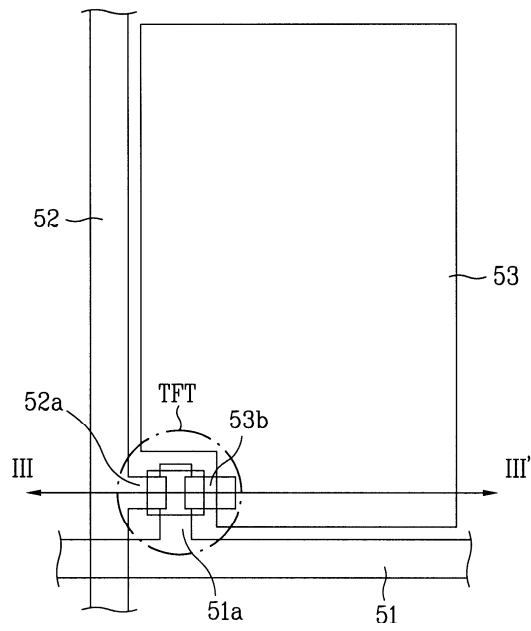
3



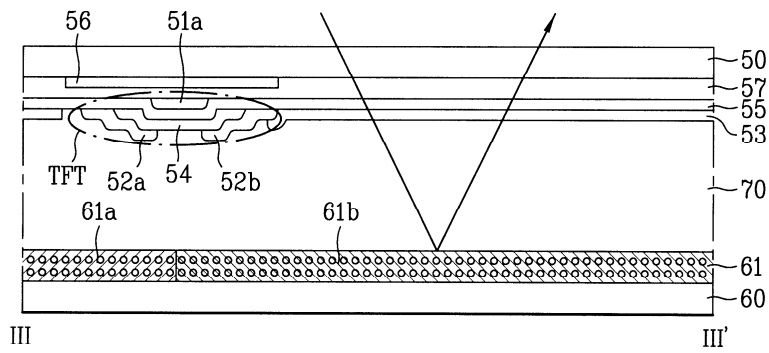
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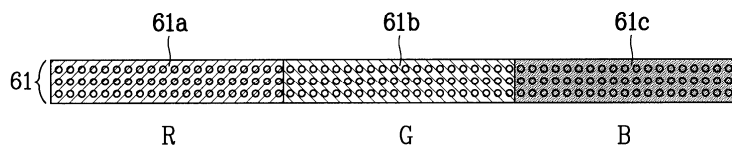
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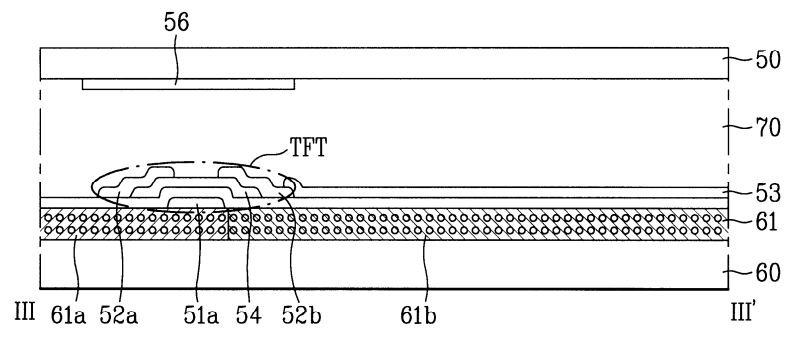
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专利名称(译)	反光液晶显示器		
公开(公告)号	KR1020040089836A	公开(公告)日	2004-10-22
申请号	KR1020030023650	申请日	2003-04-15
[标]申请(专利权)人(译)	乐金显示有限公司		
申请(专利权)人(译)	LG显示器有限公司		
当前申请(专利权)人(译)	LG显示器有限公司		
[标]发明人	KIM YOUNGSEOK 김영석		
发明人	김영석		
IPC分类号	G02F1/1335 G02F1/13357		
CPC分类号	G02F1/133514 G02F2203/02 G02F2202/32		
代理人(译)	金勇 新昌		
其他公开文献	KR100760938B1		
外部链接	Espacenet		

摘要(译)

反射型液晶显示装置及其制造方法技术领域本发明涉及一种通过使用光子晶体简化结构的反射型液晶显示装置及其制造方法，更具体地说，本发明涉及一种具有多个光子晶体的反射型液晶显示装置。形成在上基板上的薄膜晶体管阵列，电连接到薄膜晶体管的像素电极，以及形成在上基板上以覆盖薄膜晶体管的遮光层，。6 指数方面 光子晶体球，反射型液晶显示器，滤色器，散射板

