

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

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(71) 가 가
 2 5 5

(72) 3 112 - 3

8 - 41 - 7

- 416

(74)

:

(54)

, , (1) , , , (30) 가
 (30) (1) (30) 가 (1) (1) 4 , , (50)

8

, EL , , , , , , ,

1 EL

2 EL

3 EL 1 ,

4 1

5 1

6 1 EL

7

8 1

9 EL 2

10 EL 3

11 1 EL

12

1 :

1a, 30a :

2 :

Ca, Cb :

Da, Db :

Sa, Sb :

3 :

Ga, Gb :

4 :

5 :

11 :

12, 13 :

14 :

15 :

16 :

30 :

30h :

30p :

31 :

32 : CCD

33 :

40 :

50 :

60 :

61 :

62, 63 :

64 :

(Electroluminescence: EL)

EL 가 EL

, EL

가

EL , ITO() , MTDATA(4,4 - bis(3 - methylphenylamino)biphenyl) (4,4,4 - tris(3 - methylphenylphenylamino)triphenylanine)
 , (Quinacridone) Bebq2(10 - [h])
 , Bebq2 ()
 . , EL , . , 가 ,
 . , 가 , ,
 , , , ,
 가 , , , ,

, EL , EL , EL , (R),
(G), (B) 3 EL 가 El

EL
EL

EL , EL , EL ,

(1) , EL ,

(2) , EL 2 , .

1

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3

2

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1

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가

3

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1

2

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4

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6

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1

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7

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6

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[1]

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EL

EL

1

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),

EL

EL

(

, EL

EL

:, EL
(TFT)

EL

가
B

DL

1

, EL

, GL
EL (

R, G,

가

,

EL

,

,

,

TFTa가

CE

GL

, TFTa

Sa

, (Cr)

CE (Mo)

DL

가

Sb	EL	CE	, EL	(11)	TFTb	Db	Gb	.	, TFTb
	IL	.	.	,	CE	,	Gb	가	,
IL	가 EL	.	.	.	.	.	.	.	.
,	CL	CE	CE	,	TFTb	Gb	CL	.	.
2	,	1	.	2	(a) D - D	,	EL	,	2 (b) E - E
EL	.	.	.	2	.	,	.	(1)	,
,	CE	.	.	(1)	(2)	TFTa	2 (a)	.	.
Sa	Da	,	Ca	,	Ca	.	(2)	(2)	,
,	CE가	.	.	,	.	(Lightly Doped Drain)	LLD,	.	.
,	(Cr)	(Mo)	CL	.	.	CE	,	(3)	Ga,
(4)	.	.	,	(4)	Da	GL	.	.	.
DL	,	Da가	DL	.	.	.	.	.	(5)
.
,	EL	TFTb	,	2 (b)	.	.	.	,	(1)
,	2 (a)	Sb,	Db가	.	(2)	.	.	(2)	, TFTb
Cb	(3)	.	.	,	(3)	(2)	2 (a)	,	.
(Mo)	.	.	.	Gb가	.	Cb	,	(Cr)	.
,	2 (a)	.	.	(4),	.	Gb	(3)	.	.
,	(4)	Db	IL	.	.	.	.	.	.
Db	.	.	.	.	.	.	.	.	.
Sb	.	.	.	.	.	.	.	.	.
Tin Oxide)	.	.	.	.	.	.	.	.	.
EL	(11)가	.	.	.	.	(11)	EL	.	.

EL ,

a. (11)

b. (12) : NBP

c. (13) :

(R)...	(Alq ₃)	(DCJTB)
(G)...	(Alq ₃)	(Coumarin 6)
(B)...	(BAIq)	(Perylene)
	(14) : Alq ₃	
	(15) :	(LiF)
(	(16) :	(Al)

- 「NBP」… N, N' - Di((naphthalene - 1 - yl) - N, N' - diphenyl - benzidine)
 - 「Alq₃」… Tris(8 - hydroxyquinolinato)aluminum
 - 「DCJTB」…(2 - (1,1 - Dimethylethyl) - 6 - (2 - (2,3,6,7 - tetrahydro - 1,1,7,7 - tetramethyl - 1H,5H - benzo [ij]quinolizin - 9 - yl)ethenyl) - 4H - pyran - 4 - ylidene)propanedinitrile
 - 「Coumarin 6」…3 - (2 - Benzothiazolyl) - 7 - (diethylamino)coumarin
 - 「BAIq」:(1,1' - Bisphenyl - 4 - Olato)bis(2 - methyl - 8 - quinolinplate - N1,08) Aluminum

(12) , (14), (15), (16) , 2 (a)
 . , (13) , (11) , (5) , (10) , 2
 (a)

3 , (1) EL TFT (11) (100), , (12, 13) (110).

$$\begin{array}{ccccccc}
 (12, 13) & & (1) & , & (12, 13) & & , \\
 (120). & & , & 4 & , & (14) & , \\
 (\quad) & & (\text{Ni}) & & (30) \text{가} & . & (30) , \\
 (34) & & (31) & & . & & .
 \end{array}$$

， (12, 13) (1) (1)
 (30) . , 4 CCD(Charge Coupled Device) (32) (1a)
 (30) (30a) (1) (1) (30)
 , (30a, 1a) 130). 4 (30a, 1a)
 (3 50μm, 50μm .

, , , , R, G, B
(13, 14) (1) , R, G, B (14)
. , , (30) , () (11) ,
() (11) 가 . ,
R, G, B 가 가 . , , ,

5 (a) , (30) (1) () .
(30) , , (30) , 5 (a) 16 (30p) , 4 (30) . , , (30p) , 5 (b) (11) (30h) 가 .
, 16 (30p) , 4 (30) . , , (30p) , 5 (b) (11) (30h) 가 .
p) 가 .

$$5 \quad (a) \quad (30) \quad (1) \quad , \quad (1) \quad , \quad (1) \quad , \\ (31) \quad . \quad , \quad 4 \quad , \quad (34) \quad (40) \quad , \quad (1) \\ 4) \quad \text{가} \quad , \quad , \quad (1) \quad (1) \quad , \quad (1) \\ 3 \quad 140).$$

$$, \quad , \quad (15) \quad (15) \quad (16) \quad (16) \quad , \quad (1) \quad , \quad (3 \quad 150).$$

$$, \quad (1) \quad (30) \quad , \quad (1)$$

$$\nabla \quad . \quad , \quad (1)$$

$$(1) \quad , \quad (1) \quad .$$

7 (a) . 7 (a)
1 , 7 (b) , K , L(L>K)
2 , 7 (b) , 3 , 7 (c)
K , , .

1

$$n = K^4 g \rho (1 - \sigma^2) / 6.4 E t^2$$

1

가

(1)

, 8

(1) 4

(50)

가

(1) 4

(1)

, 4

, (1)

(50)

가,

(1)

(1)

(50) 가

, (50) , (1) , (1)

(50) , (1) , (30)

(1) , (1)

, , 7
(12, 13)(50) L
(50)(1)
(1)

, (50) (50) , (1) , (1) , (1) , (31)

2 (31) (31) (50) , (50) , (50) , (1) , (1) , (30) , 5 (a)

(31) (50) , (31) , (50) , (1) , (1) , (30) , 5 (a) , (50) , (31)

가

(1) , (1) 4
(30)

(50)

(1) (30)

(1)

(50) (1) , (1) EL

[2]

EL

EL

2

, 1

(1)

(30)

, 가

, 5 (a) , , (31)
 (33) . (33) , 9 , (1)
 (1) (30) , , (1) (1)
 , (33) , (1) , (50)
 . , (33) , (1)
 , , (33) , (1)

, , (33) , (1) (33) () , (1) 가
 , (33) (31) (33) (30) , , , (1) (33)
 (33) 가 (30)

, 1 (1) 가
 (2) (1) (33) , , (1)

(3) (33) 가 , , (1) (30)
 , (1) (30) (1) (1) (33)

, 2 ,
 (33) , , (31) , , (31) (1) (34)

. (33) , , 가 , , (33) (1)
 , EL

[3]
 , EL , 2 EL
 3 , 2 (1) (30) , 가

, , (1) , (1) , (1) , (1) 가
 , (1) , (1) , (1) , (1) 가

$$10, \quad \quad \quad 10, \quad \quad \quad (60) \\ , \quad \quad \quad (61) \quad \quad \quad (62, 63) \quad \quad \quad (64) \\ , \quad \quad \quad (60) \quad \quad \quad (1) \quad \quad \quad , \quad \quad \quad (1)$$

$$, \quad 11 \quad , \quad (1) \quad (30)$$

$$1 \quad (1) \quad 2 \quad (2), (3)$$

(4) (1) . , (1) (30)

3

, 2 (1) (30), 가
, 1 (1) (30), 가

[]

가

, 5 4

(1) 4 , (50) . , 12
3 2
가 , 4 , 가 . , 4
12

· 4 , 3

$$, \quad (31) \quad 5 \quad (a) \quad . \quad (30)$$

$$(50)$$

EL

R, G, B

EL

, R, G, B

EL

EL

, EL

, EL

가

E

1

3

가

2

,

3

,

4

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5

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6

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7

(57)

1.

,

,

3

2.

1

,

가

3.

1 2 ,

,

4.

1 ,

,

5.

1 ,

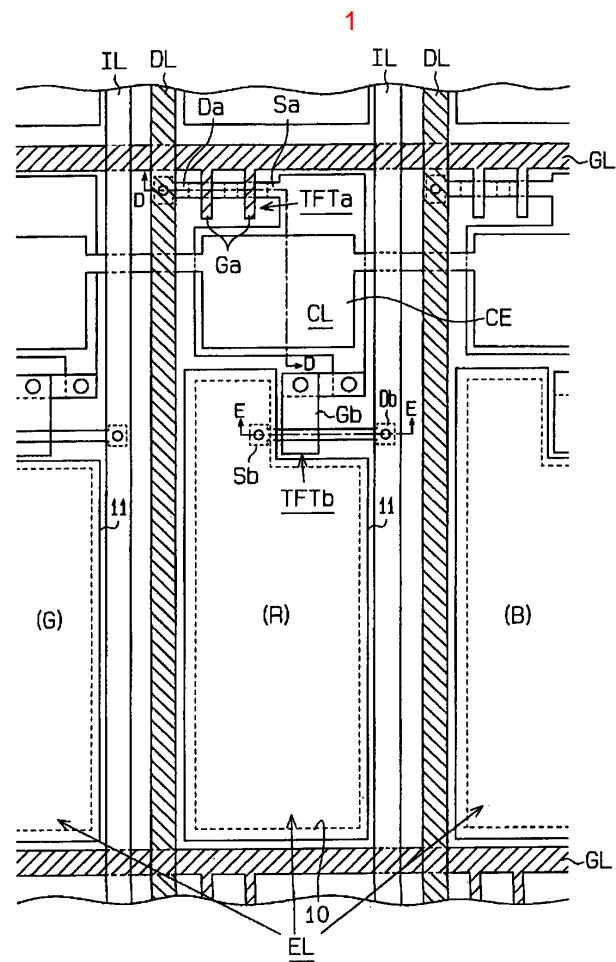
,

6.

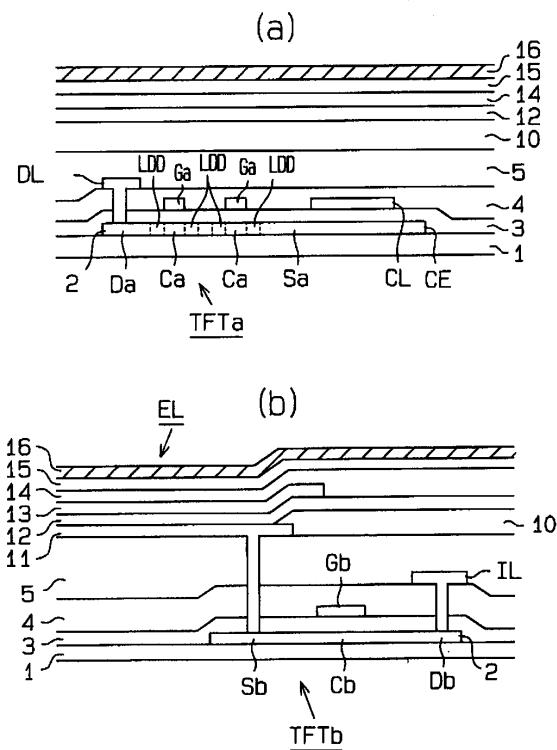
1 ,

7.

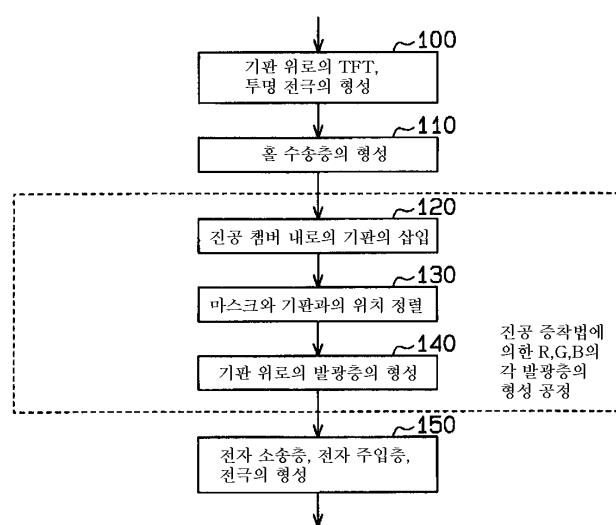
6 ,



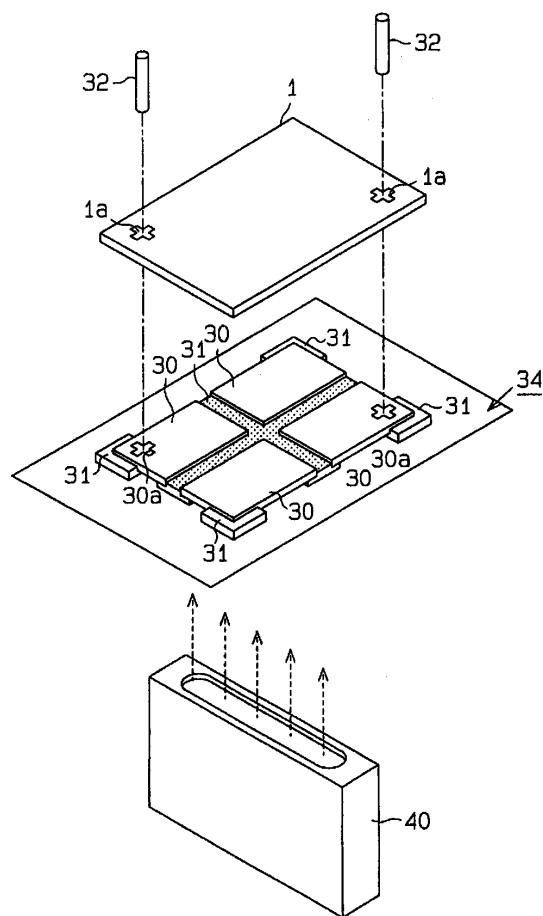
2



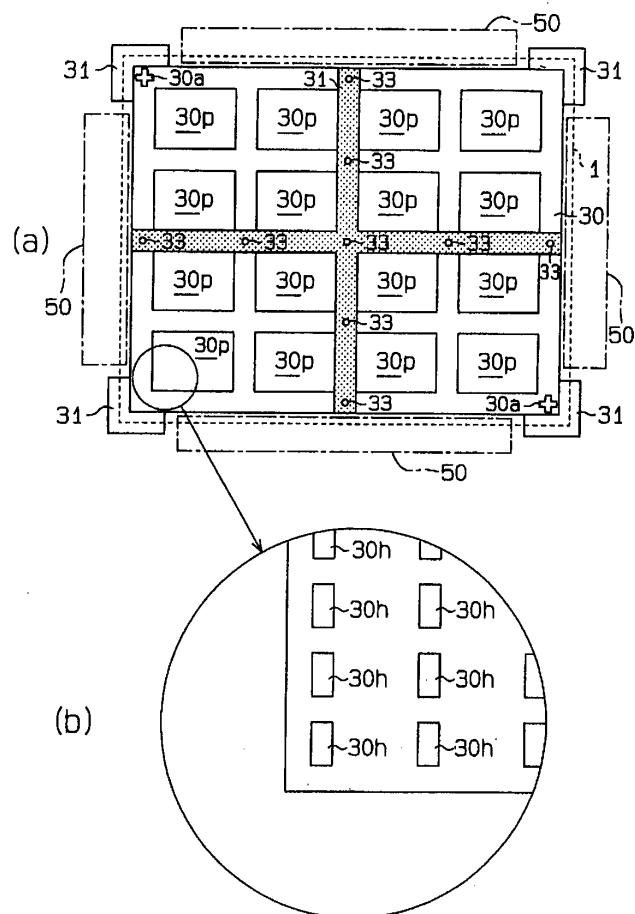
3



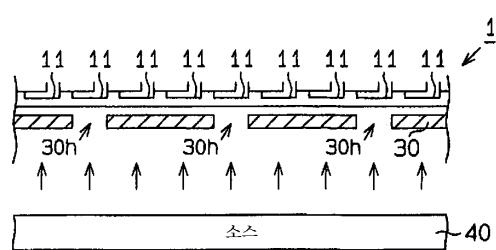
4



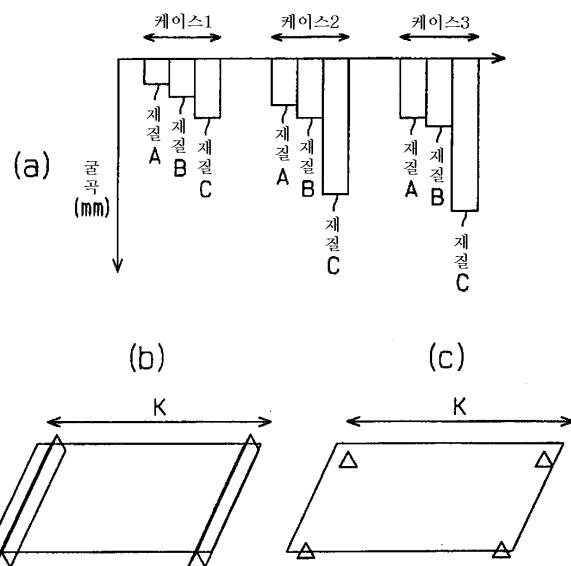
5



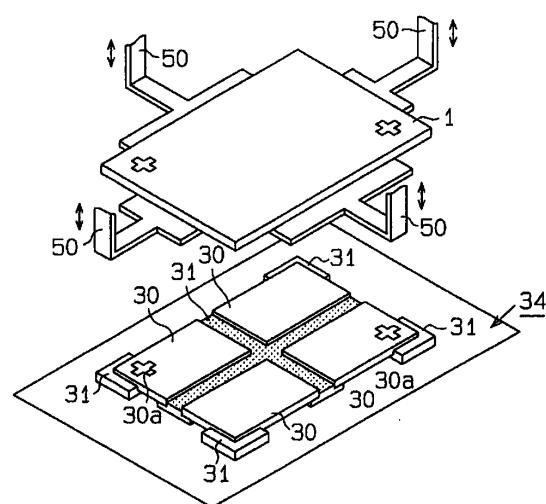
6



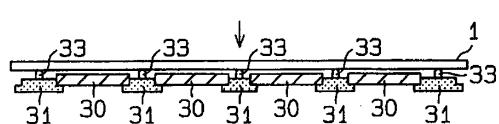
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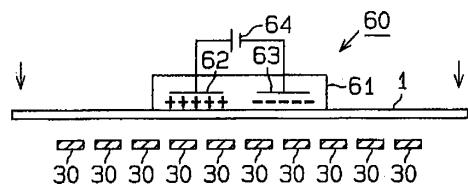
8



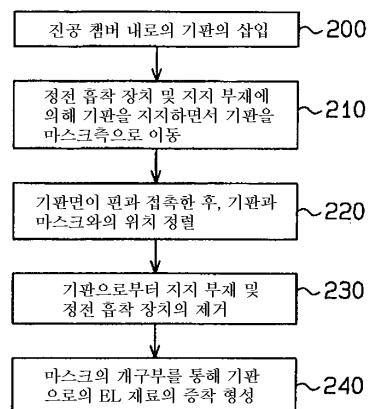
9



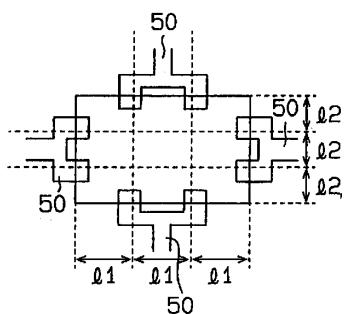
10



11



12



专利名称(译)	电致发光显示装置的制造方法		
公开(公告)号	KR1020030003122A	公开(公告)日	2003-01-09
申请号	KR1020020037540	申请日	2002-06-29
[标]申请(专利权)人(译)	三洋电机株式会社 山洋电气株式会社		
申请(专利权)人(译)	三洋电机有限公司是分租		
当前申请(专利权)人(译)	三洋电机有限公司是分租		
[标]发明人	YAMADA TSUTOMU 야마다쓰또무 NISHIKAWA RYUJI 니시까와류지 OHIMA SUSUMU 오이마스스무		
发明人	야마다쓰또무 니시까와류지 오이마스스무		
IPC分类号	H01L51/50 C23C14/04 G09F9/30 H05B33/10 G09F9/00 H01L51/40 H05B33/12 H01L27/32 C23C14/50 H01L51/00		
CPC分类号	H01L27/32 C23C14/042 H01L51/001		
代理人(译)	LEE , JUNG HEE CHANG, SOO KIL		
优先权	2001198927 2001-06-29 JP		
其他公开文献	KR100485300B1		
外部链接	Espacenet		

摘要(译)

本发明提供一种电致发光显示装置的制造方法，其能够在通过掩模形成电致发光元件时更有利地对准掩模和基板。在玻璃基板1中，其上沉积有构成电致发光元件的发光层的表面垂直向下插入真空中。掩模30设置在该真空中。发光层的材料通过掩模30的开口粘附到玻璃基板1上，从而粘附发光层。在对准玻璃基板1和掩模30时，玻璃基板1的四个侧面由侧支撑构件50支撑。 - 1 - 8 指数方面 位置对准，EL元件，显示面板，发光层，玻璃基板，支撑构件，显示装置

