

(19)
(12)

(KR)
(A)

(51) 。 Int. Cl. ⁷ H05B 33/10			(11) (43)	2003-0065371 2003 08 06
(21)	10-2003-0005517			
(22)	2003 01 28			
(30)	10/060,670	2002 01 30		(US)
(71)			343	
(72)	14580		299	
	14580		1250	
	14616		245	
	14625	176		
(74)				
	:			
(54)				

가

가	(Littman)	(Wolk)
6,114,088	6,140,009	6,214,520
221,553		

EL

EL

EL

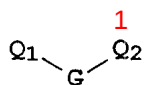
EL

- a) 1 ;
- b) , , - ;
- c) , 1 ;
- d) , , 가 ;
- e) , 1 ;
- f) 2 ,
- 1 , (12) (10)가 (10) (14) (18) (26) (26) (12)가 (galvanometer, 22)가 f- (24) X 가 가 , 1 Y , (12) (18) (32) (28) (30) (가) , , 가 , 2 (12) (18) (12) (18) (18) (12) (18) (22)가 (38) , f- (24) (18) (12) - (36) (44)

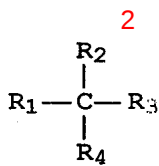
(36) 가 (18) 가 . 가 (24)
(38) , f-
, 가
(26) (38)² , 가² , 2
(22) , 가 (28) (12) , (12) (38)
(38) 가 (12) (18)
(38) (18)
(14) , YAG
(David Kessler)
6,252,621
EL (12)
(38)
(12) (34),
(36), (38) (34)가 , (38)
(36) 4,772,582 가
, 가
() , 가
, 가
(36) 5,578,416
,
0.1 (20%가).
(12) (18) 가 (16) . 가 3
(16) 0 150 (12) (18) 40 130 (38) 가 (16) (38)
, 가
(44) (38)
, 가
, 가 (16) 가 , 가 (16)
(18) . 가 (16) (32)
. 가 (16) 가

가 (16) , 가 (16) . 가 (16) 가 , IR 가 , 가 가 가 (16) (18), EL OLED 가 (TFT) 가 (addressing) (103) (105), (107), (109)(가 (109R) (109B)), (111), (113) EL 2 1 1 RGB 500 nm 가 1 1 (1 (2) (18) 가 (blanket) (101) 가 EL EL , 가 (103) , EL (ITO) (IZO), 가 (103) EL (103) 4.1 eV (105) (103) (107) 4,720,432 6,208,075

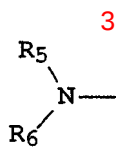
- EL
 0 891 121 A1 1 029 909 A1
 EL (107) 3
 가 가 3가 3
 3,180,730 (Klufel)
 658,520 (Brantley) 3,567,450 3,
 2 3 4,720,432 5,0161,569
 1 :



,
 Q₁ Q₂ 3
 G
 가 Q₁ Q₂
 . G가
 1 2 2
 :



,
 R₁ R₂ ; , R₁ R₂
 R₃ R₄ : 3

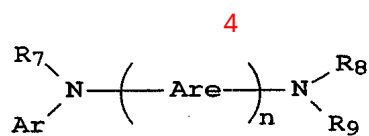


R_5 R_6

가, R_5 R_6

$3 \times 2 \times 3$

4 :



Are

$n = 1 \sim 4$;

Ar, R_7 , R_8 , R_9

Ar, R_7 , R_8 , R_9

1 4

1 6

5, 6

7

3

10

3

1

4

2

3

1,1- (4- -p-) ;

1,1- (4- -p-)-4- ;

4,4'- () ;

(4- -2-)- ;

N,N,N- (p-) ;

4-(-p-)-4'-[4(-p-)-] ;

N,N,N',N'- -p- -4,4'- ;

N,N,N',N'- -4,4'- ;

N,N,N',N'- -1- -4,4'- ;

N,N,N',N'- -2- -4,4'- ;

N- ;

4,4'- [N-(1-)-N-] ;

4,4'- [N-(1-)-N-(2-)] ;

4,4'- [N-(1-)-N-]p- ;

4,4'- [N-(2-)-N-] (NPM);

4,4'- [N-(3-)-N-] ;

1,5- [N-(1-)-N-] ;

4,4'- [N-(9-)-N-] ;

4,4'- [N-(1-)-N-]-p- ;

4,4'- [N-(2-)-N-] ;

4,4'- [N-(8-)-N-] ;

4,4'- [N-(2-)-N-] ;

4,4'- [N-(2-)-N-] ;

4,4'- [N-(2-)-N-] ;

4,4'- [N-(1-)-N-] ;

2,6- (-p-) ;

2,6- [-(1-)] ;

2,6- [N-(1-)-N-(2-)] ;

N,N,N',N'- (2-)-4,4'- -p- ;

4,4'- {N- -N-[4-(1-)-] } ;

4,4'- [N- -N-(2-)] ;

2,6- [N,N- (2-)] ;

1,5- [N-(1-)-N-] .

- 1 009 041
가 ,
, PEDOT/PSS (3,4- (N-)/(4-)(PVK), , ,
.

4,769,292 5,935,721 , EL -
(LEL)(109) , -

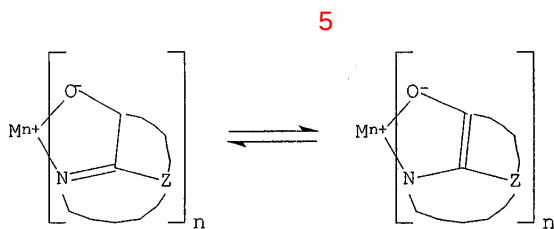
()

98/55561 , 00/18851 ,
00/57676 , 00/70655 ,
0.01 % 10 % /

5,141,671 , 5,150,006 , 5,151,629 , 4,769,292 ,
5,484,922 , 5,593,788 , 5,645,948 , 5,405,709 ,
5,755,999 , 5,928,802 , 5,935,720 , 5,683,823 ,
6,020,078 , 5,935,721 ,

8- (5)
가 , 500 nm , ,

:



M ;

n 1 4 ;

Z 2

가, 가, 가 가 , , ; , ; 가 , 가, 가 가 . ,

Z 2 가 , 2 , 18

:

CO-1: [, (8-) (III), ALQ]

CO-2: [, (8-) (II)]

CO-3: [{f}-8-] (II)

CO-4: (2- -8-) (III)- μ - - (2- -8-) (III)

CO-5: [, (8-)]

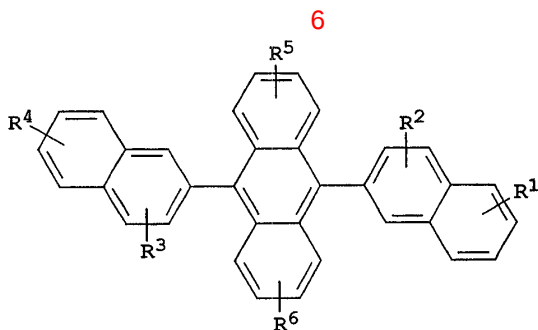
CO-6: (5-) [, (5- -8-) (III)]

CO-7: [, (8-) (I)]

CO-8: [, (8-) (III)]

CO-9: [, (8-) (IV)]

9,10- -2-() (6)
400 nm , , , , :



R¹, R², R³, R⁴, R⁵, R⁶ ,
:

1: , 1 24 ;

2: 5 20 ;

3: , 4 24 ;

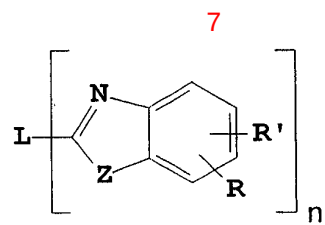
4: , , ,
5 24 ;

5: 1 24 , ;

6: , , .

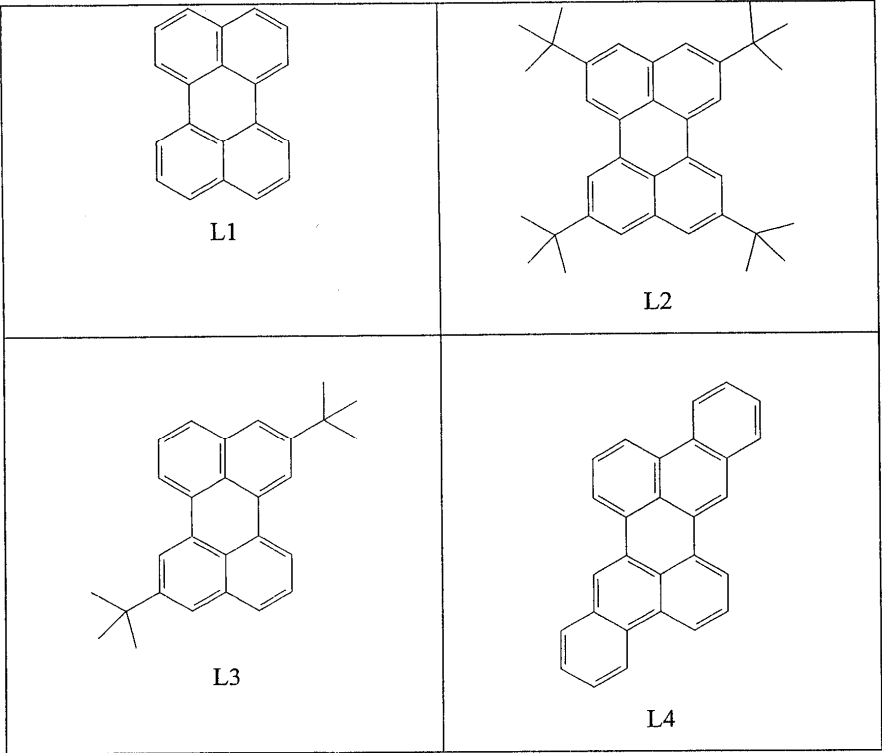
9,10- [4-(2,2- 9,10- -(2-) 2-t- -9,10- -(2-) (TBADN) 가 LEL .

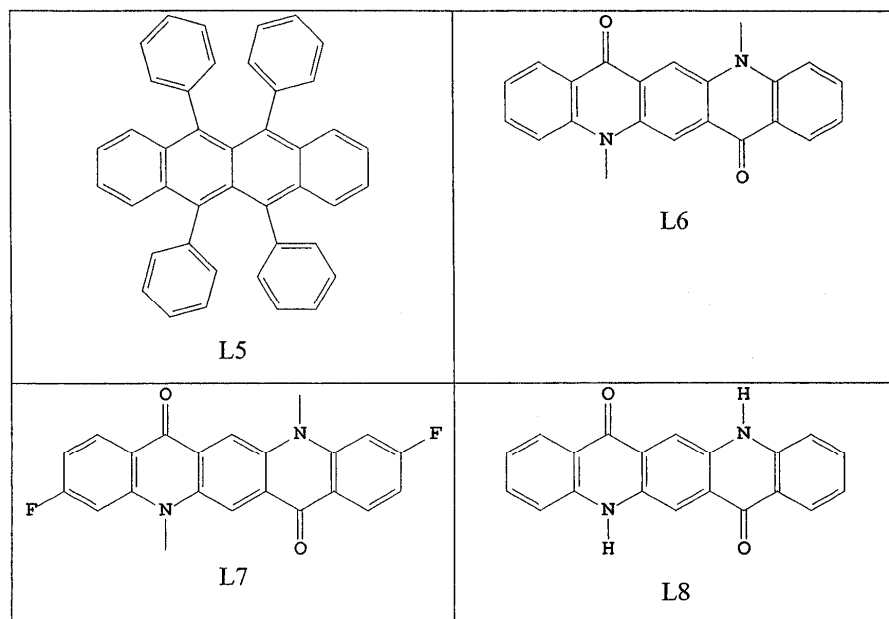
(7) , 400 nm , , , , :

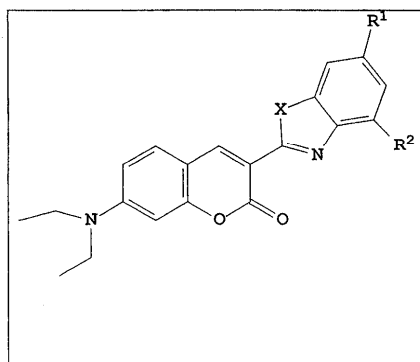
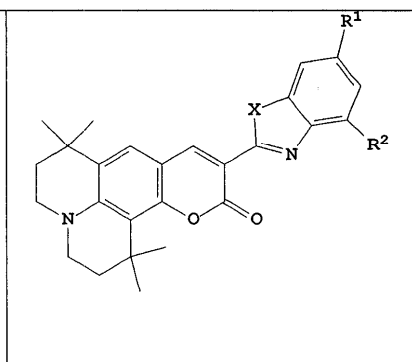


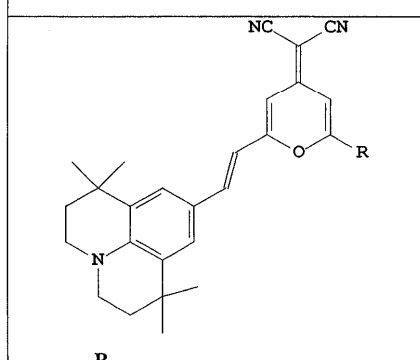
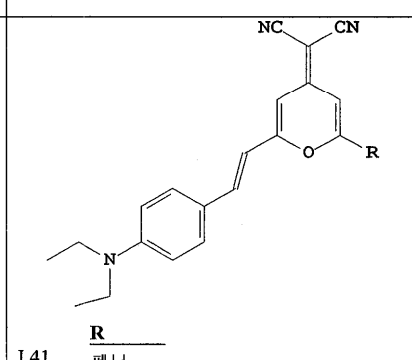
n 3 8 ;
Z O, NR, S ;
R R' ; 1 24 , t- , ; 5 20
;
L

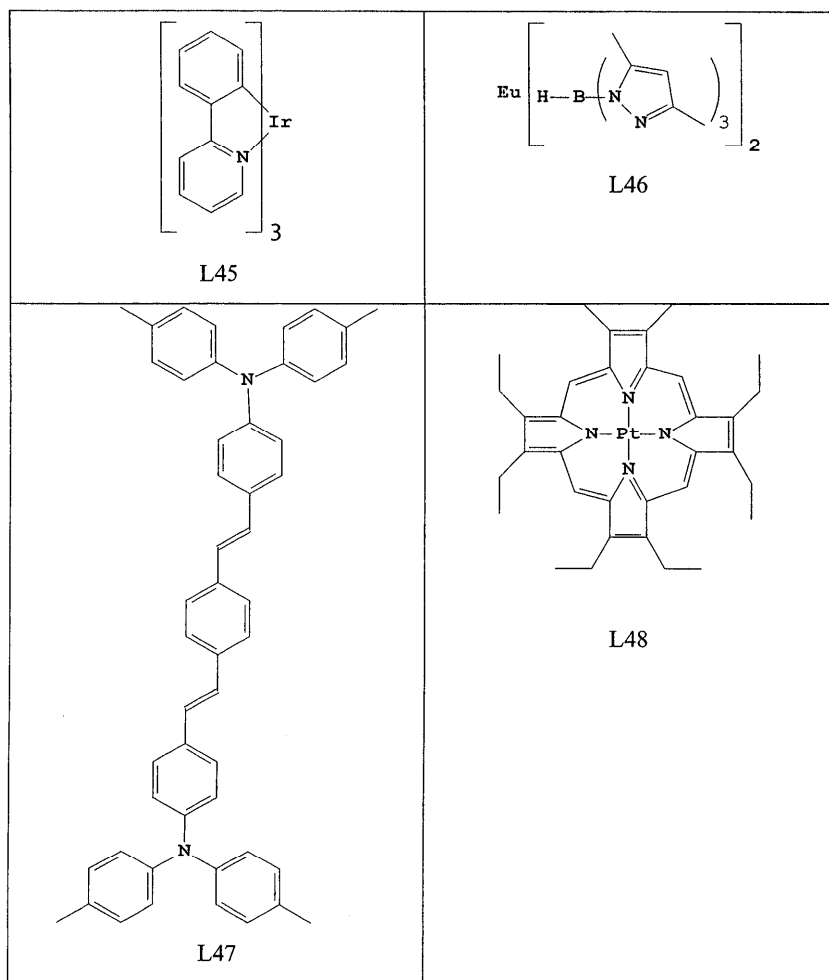
2,2',2'-(1,3,5-) [1- -1H-] .





							
	X	R1	R2		X	R1	R2
L9	O	H	H	L23	O	H	H
L10	O	H	메틸	L24	O	H	메틸
L11	O	메틸	H	L25	O	메틸	H
L12	O	메틸	메틸	L26	O	메틸	메틸
L13	O	H	t-부틸	L27	O	H	t-부틸
L14	O	t-부틸	H	L28	O	t-부틸	H
L15	O	t-부틸	t-부틸	L29	O	t-부틸	t-부틸
L16	S	H	H	L30	S	H	H
L17	S	H	메틸	L31	S	H	메틸
L18	S	메틸	H	L32	S	메틸	H
L19	S	메틸	메틸	L33	S	메틸	메틸
L20	S	H	t-부틸	L34	S	H	t-부틸
L21	S	t-부틸	H	L35	S	t-부틸	H
L22	S	t-부틸	t-부틸	L36	S	t-부틸	t-부틸

							
	R				R		
L37	페닐			L41	페닐		
L38	메틸			L42	메틸		
L39	t-부틸 (DCJTB)			L43	t-부틸		
L40	메시틸			L44	메시틸		



EL (111) 8- 8-)

5

4,539,507 4,356,429 7

(109 111)
(109 107)

(113)

(< 4.0 eV)

Mg:Ag

4,885,221 1 20 %

572 LiF Al 5,677,

5,059,861 5,059,862 6,140,763

5,776,623 (sputtering)

0 732 868 5,276,380

(18) - (38)
6,237,529 (12)

OLED /
6,226,890

1
125μm 2.5 CO-1(ALQ) 60 nm 0.2 nm L39(DCJTБ), 11 nm TBADN 0.6 nm N
PB
(ITP) , 40 80 nm 1 (ITO 0.1nm CF x NPB
, 75nm NPB - 2
1 가
16 ×80 1/e²
27
65 200 ALQ가 - 20
() - 1

[1]

			20 mA/cm ²	20 mA/cm ² 10
20 (, 가)	390 mW	608	481	305
60	390 mW	612	488	375

60 가 () , 가 . 60
가 , 100
가

_____ 2

125 μ m
18.7 ALQ , 18.7 60 TBADN , 0.2 L7
2

[2]

			20 mA/cm ²	20 mA/cm ² 10
37	460 mW	524	217	162
60	460 mW	520	215	273

60 가 () , 37
가 , 100
가

가 EL EL

- (57)
- 1.
- a) 1 ;
- b) , , () ;
- c) , 1 ;
- d) , , 가 ;
- e) , 1 ;
- f) 2 ,

2.

1 ,

가 (d)가 가

3.

1 ,
가 (d)가 가 .

4.

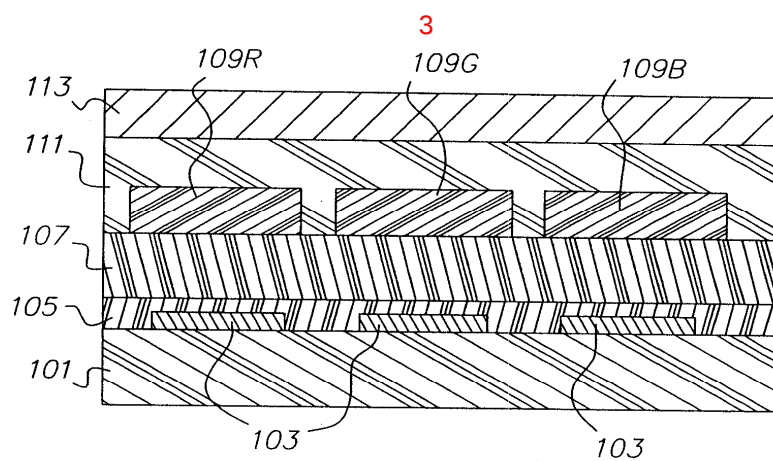
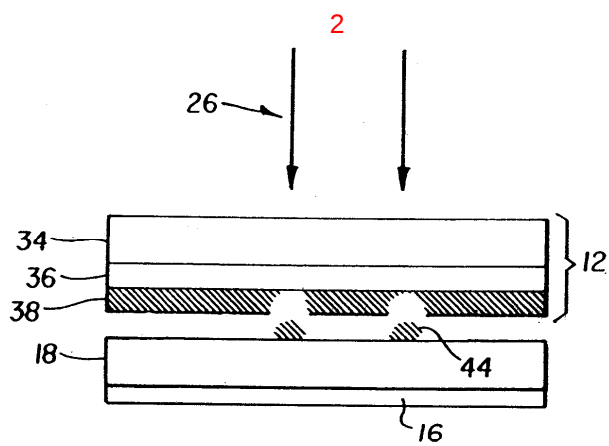
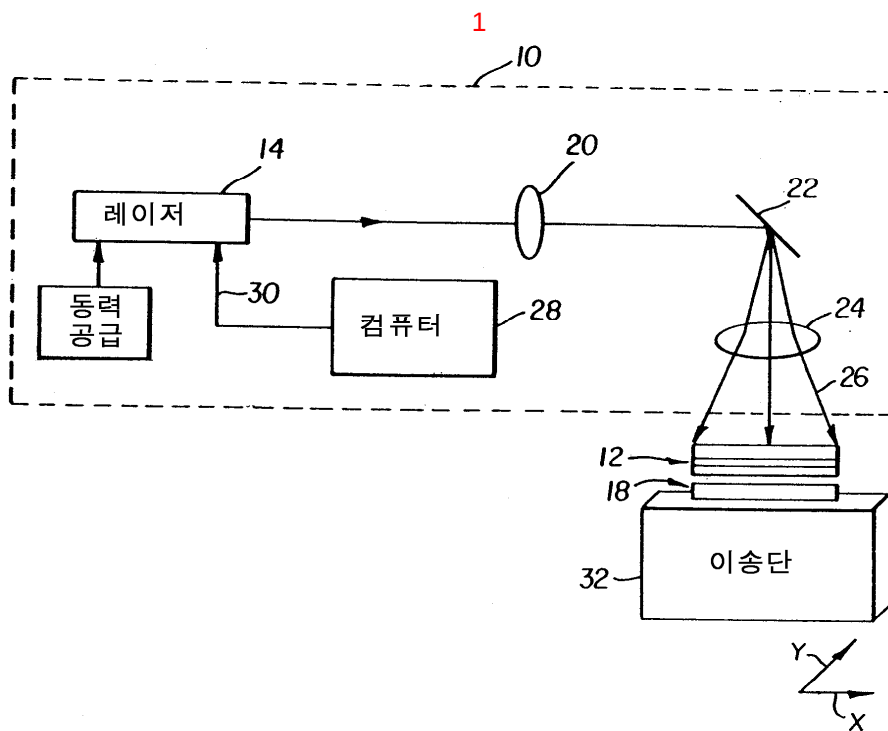
1 ,
가 30 150 .

5.

- a) 1 ;
- b) () ;
- c) , 1 ;
- d) , , 가 ;
- e) 1 () , ;
- f) 2 , .

6.

- a) 1 ;
- b) () ;
- c) 1 ;
- d) , , 가 ;
- e) 1 () , ;
- f) 2 , .



专利名称(译)	制造电致发光显示装置的方法		
公开(公告)号	KR1020030065371A	公开(公告)日	2003-08-06
申请号	KR1020030005517	申请日	2003-01-28
[标]申请(专利权)人(译)	伊斯曼柯达公司		
申请(专利权)人(译)	柯达公司针		
当前申请(专利权)人(译)	柯达公司针		
[标]发明人	BURBERRY MITCHELLSTEWART 버버리미첼스튜어트 TUTT LEEWILLIAM 터트리윌리엄 CULVER MYRONWILLIAM 컬버미론윌리엄 TANG CHINGWAN 탕칭완		
发明人	버버리미첼스튜어트 터트리윌리엄 컬버미론윌리엄 탕칭완		
IPC分类号	H01L51/40 H01L51/50 H05B33/10 H01L51/56 H01L51/30 H05B33/12 H01L27/32 H01L51/00		
CPC分类号	H01L51/56 H01L51/0084 H01L51/0059 H01L51/0089 H01L51/0062 H01L51/0085 H01L51/0013 H01L51/0052 H01L27/3211 C23C14/048		
代理人(译)	KIM, CHANG SE 张居正, KU SEONG		
优先权	10/060670 2002-01-30 US		
其他公开文献	KR100910438B1		
外部链接	Espacenet		

摘要(译)

具有布置在显示基板上的像素阵列的有机电致发光显示装置，提供该方法的步骤，用于提供供体元件和显示基板，并且包括将它们加热到预期温度的步骤。接下来，利用来自施主元件的辐射传热传递将有机材料移动到显示基板。

