

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

(51) 。 Int. Cl.⁷
H05B 33/22

(11)
(43)

10-2004-0010317
2004 01 31

(21) 10-2003-0050212
(22) 2003 07 22

(30) 10/201,338 2002 07 23 (US)

(71) 343

(72) 14625 36

14609 178

14618 20

(74)

:

(54) -

OLED ; OLED ; OLED (encapsulatin
g) ; / ; OLED 가 , /
- , OLED 가 .

7

1 - OLED .

2 (heads up) .

3 - OLED .

- 4 - - OLED .
- 5 OLED .
- 6 3 OLED .
- 7 - OLED .
- 8 OLED 가 (edge transition) .
- 9 OLED 가 .
- 10 (tapered) - (tiled) .
- 11 OLED .

(OLED) - - -

ang) (OLED) 6,384,529 (2002 5 7) OLED 가 () OLED (T
 가 , , () , ()
 , (Lambertian) .
 , OLED 가 (light-piped) ,
 304 (2001 1 30) - OLED 가 (Robinson) (aperture) 6,181,

OLED ; OLED OLED - 가 (encapsulating cover); / ;
 , 가 OLED / 가 -

가 , OLED

OLED - OLED (OLED가) -
 (OLED가)

1 OLED (19), 2 (30), OLED (10) (12), 1 (18), (36)
 (61) (19) (12) (32) (34) (62)
 A B 0.25 (36), 2 (30) (32) 1
 , OLED (19), 2 (30) (layer) (32) (36) (12)
 3 (12) - (12)(
) (40))
 (Scott Corporation(Yonkers, New York) 가
 - OLED A C 가 (3 가),
 - 가
 4 , OLED (12) OLED (36)
 (coupled) , OLED (19) (34) 가 -
 - OLED (34) -
 5 , OLED (40) 6 (19)
 (40) 3 19R, 19G, 19B OLED
 7 (41) (41) (36) , OLED (19)
). 7 OLED (42) (7
 (convex) (concave)
 OLED (row) (dark)
 8 9 8 9
 10 (38) (11)
 - (38) (19) (11) 가

(Tang) 4,769,292 (1988 9 6) (VanSlyke)
 5,061,569 (1991 10 29) OLED
 (OLEDs) 가

OLED
 (TFTs)

(103), (105), (107), (109), (111) 11
 (113)

500nm EL

OLED (260) / (250) OLED 가
 (+) 가

EL 가 EL AC OLED가 AC
 OLED (Tang) 5,552,678 (1996 9 3)

OLED (bottom)
 EL EL

EL (103) (ITO), (IZO)
 (selenide)
 EL
 4.1eV
 (photolithographic)

(103) (107) (105)
 가

6,208,075 (porphyritic)
 , m-MTDATA(4,4',4'- [(3-)]
 EL
 EP 0 891 121 A1 EP 1 029 909 A1

(107) 3
 3가
 3
 (Klupfel) US3,180,730

(Brantley) US3,567,450 3,658,520

3 US4,720,432 US5,061,569 3
 (moieties) 3

3

- 1,1- (4- -p-)
- 1,1- (4- -p-)-4-
- 4,4'- () (quadriphenyl)
- (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-]
- 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-]
 4,4',4'- [(3-)]

EP 1 009 041

VK), 3, (N-) (P
) (3,4-)/ (4-) (PEDOT/PSS)

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

WO 00/70655 (phosphorescent) WO 98/55561, WO 00/18851, WO 00/57676
 0.1 10 % (p-), PPV)

가

(bandgap)

3 가

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

8- ()

CO-1: [(8-) ()]

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

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

CO-4: (2- -8-) ()- - (2- -8-) ()]

CO-5: [(8-)]

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

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

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

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

721 9,10- (2-) US 5,935,
, 2,2',2'-(1,3,5-) [1- -1H-] (distyrylarylene)

8- EL - (111) - (8-

US 4,356,429 (brightner) US 4,539,507

20% ETL) (EIL) (113) Mg:Ag (<4.0eV) (capped) (

US 5,677,572 LiF Al
US 5,059,861; 5,059,862 6,140,763

US 4,885,211, US 5,247,190, JP 3,234,963, US 5,703,436, US 5,608,287, US 5,387,391, US 5,677,572, US 5,776,622, US 5,776,623, US 5,714,838, US 5,969,474, US 5,739,545, US 5,981,306, US 6,137,223, US 6,140,763, US 6,172,459, EP 1 076 368, US 6,278,236 US 6,284,393

US 5,276,380 EP 0 732 868 (through)- (ablatio

(109 111)가

35, US 20020025419, EP 1 182 244, US 5,683,823, US 5,503,910, US 5,405,709 US 5,283,182

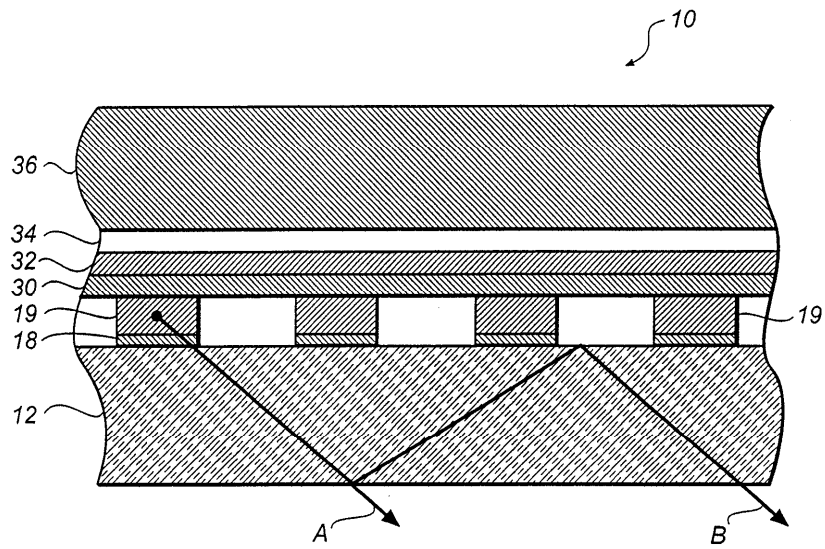
015859 가 US 20020

US 5,703,436 6,337,492

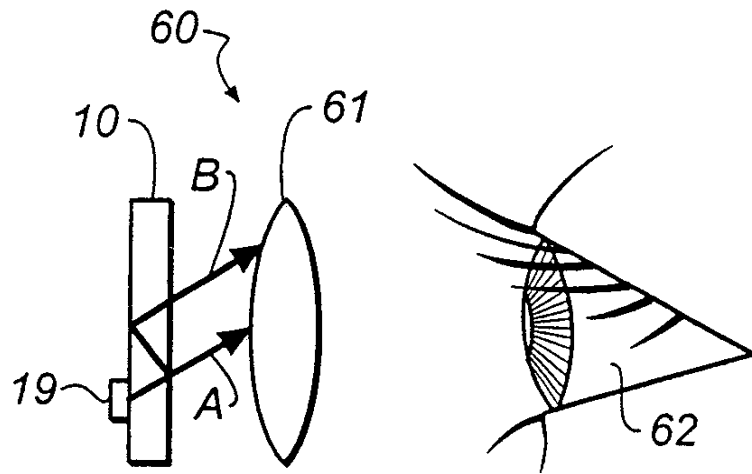
(donor)
US 6,237, 529

(US 5,294,870), (US 5,668,551, 5,8

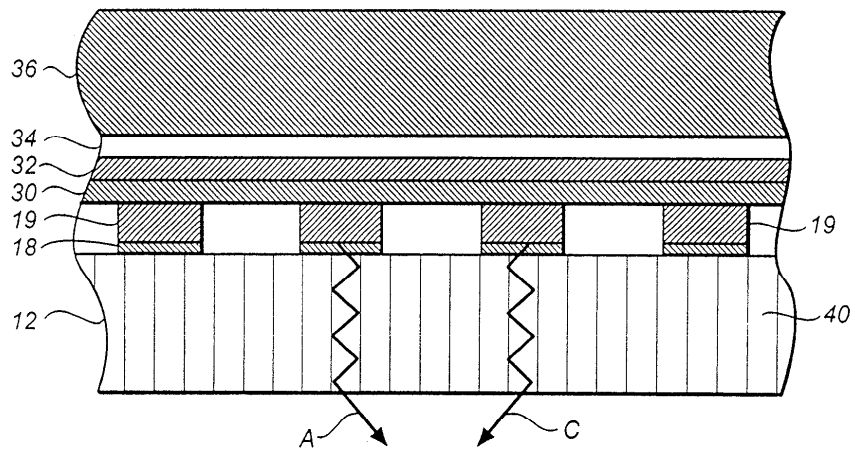
1

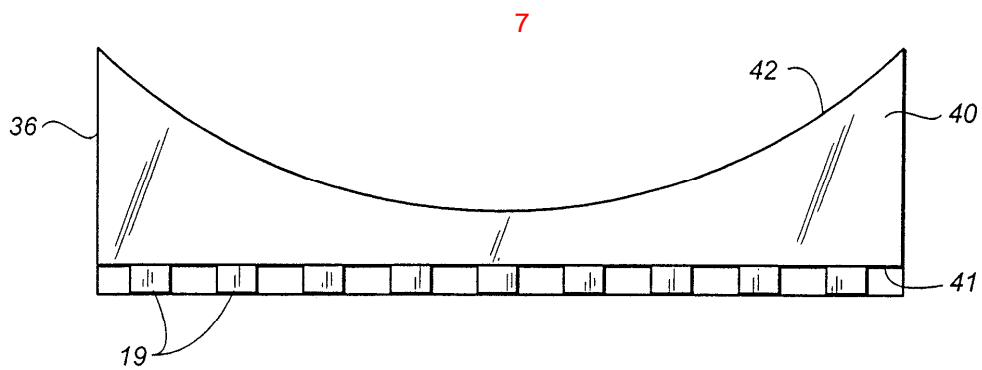
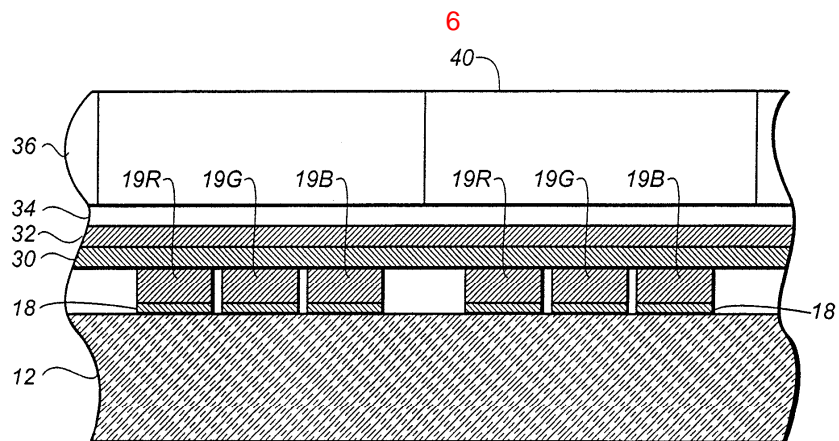
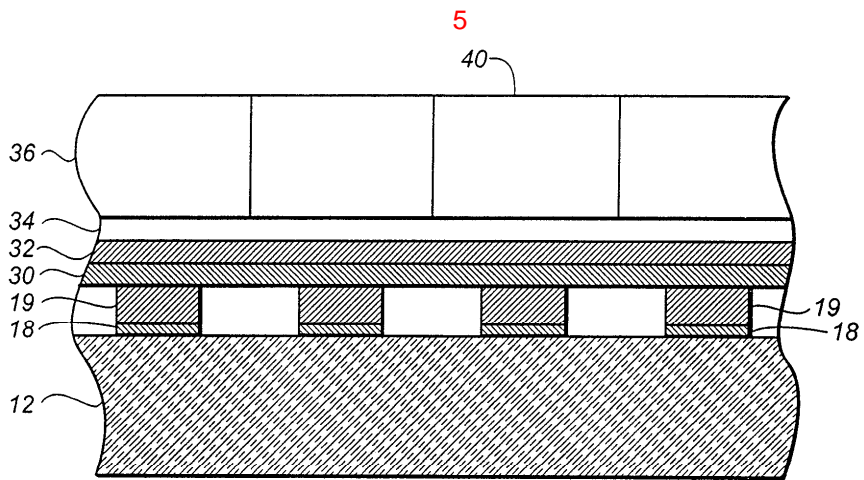
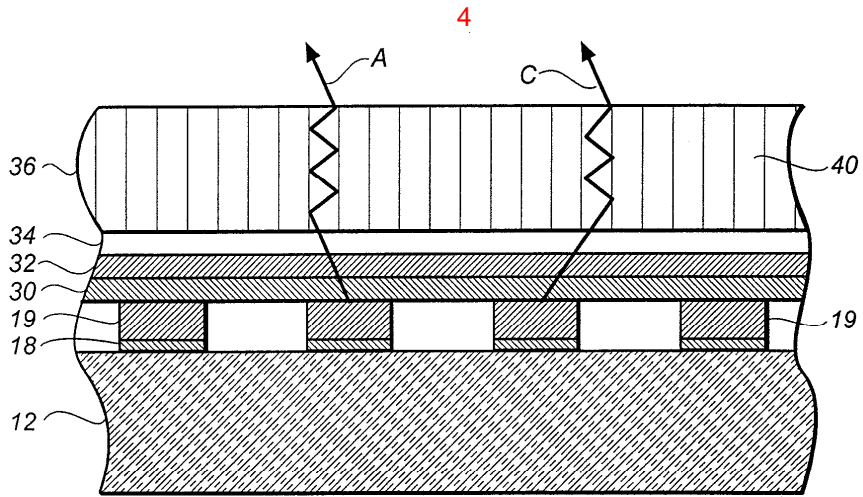


2

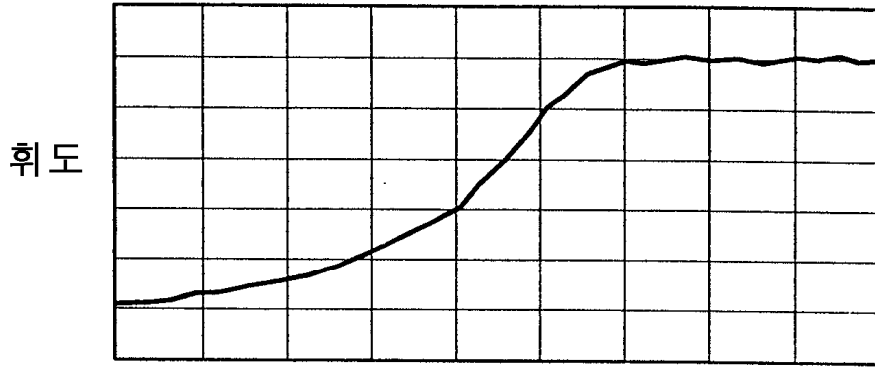


3



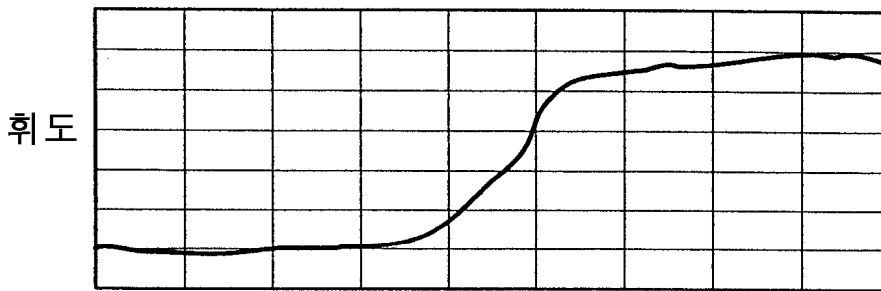


8



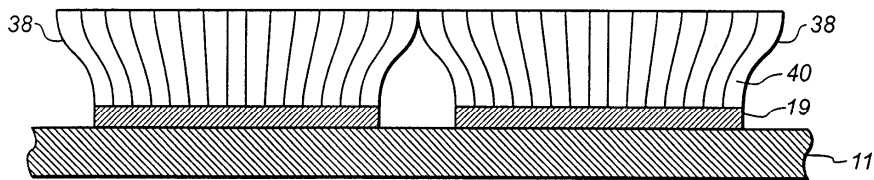
가장자리 위치(유리 기판)

9

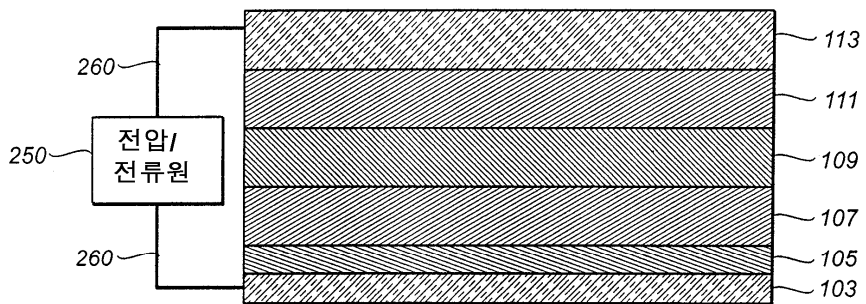


가장자리 위치(섬유-광학 화면)

10



11



专利名称(译)	有机发光二极管显示屏，带光纤屏		
公开(公告)号	KR1020040010317A	公开(公告)日	2004-01-31
申请号	KR1020030050212	申请日	2003-07-22
[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	COK RONALDS 크로날드에스 BURTIS JOHNC 버티스존씨 KESSLER DAVID 케슬러데이비드		
发明人	크로날드에스 버티스존씨 케슬러데이비드		
IPC分类号	H05B33/02 H01L51/50 H05B33/22 H05B33/04 G02B6/08 H01L51/52 H01L27/32 G02B6/42		
CPC分类号	H01L51/5262 G02B6/4249 H01L51/52 H01L51/5237 H01L51/5281 G02B6/08 H01L27/3211 H01L51/524 H01L51/5253		
代理人(译)	KIM, CHANG SE 张居正, KU SEONG		
优先权	10/201338 2002-07-23 US		
外部链接	Espacenet		

摘要(译)

OLED显示装置包括基板;在基板上形成的OLED元件阵列;封装盖设置在OLED元件上方;以及通过基板和/或封装盖可见的显示装置，其中基板和/或封装盖是光纤屏，从而改善OLED显示装置的表现清晰度。 7

