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(12) (A)

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(86)	PCT/CA2002/00034		(87)	WO 2002/58438
(86)	2002 01 10		(87)	2002 07 25
(30)	09/761,971	2001 01 17		(US)
(71)	8 3 4			10102-114
(72)	6 1 8			40
	9 1 2			#504 301
	6 2 7			1314
(74)				
	:			
(54)				

. 가 , 가 .

(thick film)

(non-porous layer)

(non-porous)

가

가

(display pixel) 가

(address row)

(address column) 가

(TFEL)

(dielectric breakdown)

가

10 μm ()

PMN-PT

(overlayer) MOD()

(sintered)

(peroski

PMN-PT

(sol gel technics)

3 μm

MOD

1000

PMN-PT

(row)

5,432,015

가

, Wu PCT WO 00/70917

(column)

(sealing layer)

(TFEL)

(resistance)

TFEL

CRT()

CRT

가

가

가

가

TFEL

(unpatterned)

CIE

CIE

PCT WO 00/70917

(lift

- off)

가

(species)

가 가 . , 가 .

가 , 가 . 가

[]

,

:

(dipole) 가 ;

;

(dipole) 가

()

()

20 , 50 , 100 가

$0 < x < 1$ $Ba_x Sr_{1-x} TiO_3$, $BaTa_2 O_6$,

$0.05 - 1.0 \mu m$, $0.1 - 0.3 \mu m$ 가 .

$Al_2 O_3$ $BaTiO_3$

가

1 .

2 1 .

3 .

4 가 .

5

가 .

6

가 .

7

가 가 ,

가

가 .

C.Kittel	'	'	1968	3	(J.Wiley amp; Sons, New York)	419 apge
						가

(PZT) PMN-PT

$$\text{Al}_2\text{O}_3$$

100 , 가 . 20 , 50

$$\text{Ba}_x \text{Sr}_{1-x} \text{TiO}_3 \quad (0 < x < 1), \quad \text{BaTa}_2 \text{O}_6$$

0.05-1.0 μm , 0.1-0.3 μm . (smoothing layer)

가 , (resistance)

(oxynitride)

10

가 가 가 .

가 . ,

가

. PZT PMN-PT

(PZT)

가

가
: (a)

(bulk)

가

(b)
(c)
(hopping)

가

가

가

(Al₂O₃)
(BaTiO₃)

1 (row) (14) (12) 2 (16) 10 (18)가 (1
8) (20,22,24) 3 (20) (18) (30) (28) 3 (26)
(24) (22) (28) (18) 926 (32), (40) (34) (42) (36)
(64) 가 3 (62) 60 (gold) (66) (6
4) 3 1 (68) 1 (70) x=0.1
0.4 가 Mg_xZn_{1-x}S:Mn . Al₂O₃ (72)

(74) (70) .

가

[1]

3 가 .

5cm ×5cm
가

Heraeus 98-42 , North Adams,MA,USA MRA W.Conshocken,PA,USA
(fired)
(PZT)가
PCT WO 00/70

917

(0.5M) Tullytown,PA,USA PZT Gelest DBAT 150 가 Gelest

1 2 ,

0.1 μm 가 10 700 가

가 0.2 μm 가

x=0.1 0.4 가 $\text{Mg}_x\text{Zn}_{1-x}\text{S:Mn}$ 0.6 μm
Al₂O₃

50nm

(seal)

가

가 120Hz 2 (square wave)

50nm Al₂O₃ 가 ,

4

가 200V 700 /m² 가
(threshold) 가 200V 100 /m² 가 ,

가 (gray scale)

[2]

1
PMN-PT 가 , MRA Ferro Corporation Niagara Falls, USA
% 가 1.0 μ m 0.3
50 μ m Al₂O₃
5
가 50 μ m Al₂O₃
260V 120Hz
가 (gray scale)
[3]
2 가 200.9.14 6
0/232549 150nm 200nm Al₂O₃
가
6
가 250V 120Hz 80 /m²
10 200nm Al₂O₃ 가
[4]
1 가 , 50 μ m Al₂O₃
O₃
200V 2.4 KHz 2
7
120Hz 가 (log)
가 가 7
가

(57)

1.
(thick film) (phosphor alyer) :
(non-porous) ,
(dipole) 가
;
;
(atomic species)
.

2.
1 , 가 .

- 1 3.
1 , .
- 1 4.
1 , () () .
- 1 5.
1 , 0.05-1.0 μm .
- 1 6.
1 , 0.1-0.3 μm .
- 5 7.
5 , 3 4 .
- 7 8.
7 , .
- 7 9.
7 , .
- 7 10.
7 , .
- 7 11.
7 , 20 .
- 11 12.
11 , 50 .
- 11 13.
11 , 100 .
- 11 14.
11 , $0 < x < 1$ $\text{Ba}_x \text{Sr}_{1-x} \text{TiO}_3$, $\text{BaTa}_2 \text{O}_6$.
- 11 15.
11 , .
- 11 16.
11 , .
- 16 17.
16 , $\text{Al}_2 \text{O}_3$.
- 16 18.
16 , BaTiO_3 .
- 16 19.
16 , .

20.

:

,

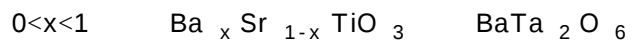
(dipole) 가

.

21.

20

,



22.

20

,

23.

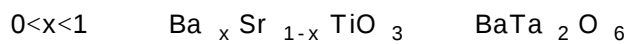
(dipole) 가

,

24.

23

,



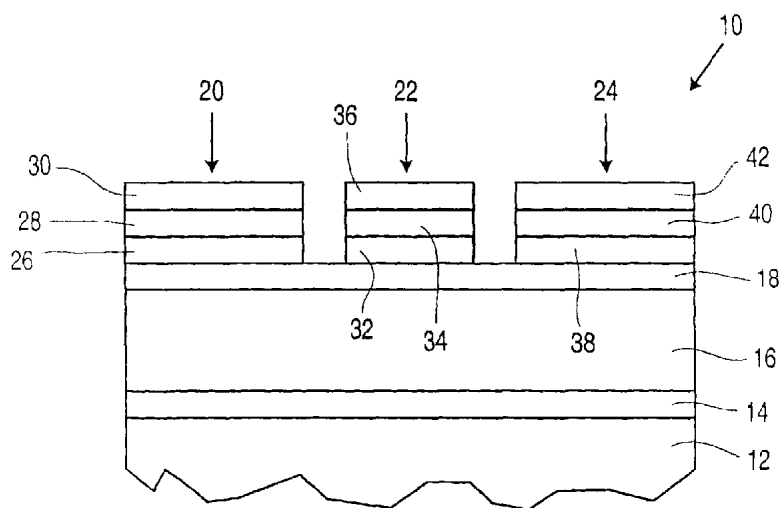
25.

23

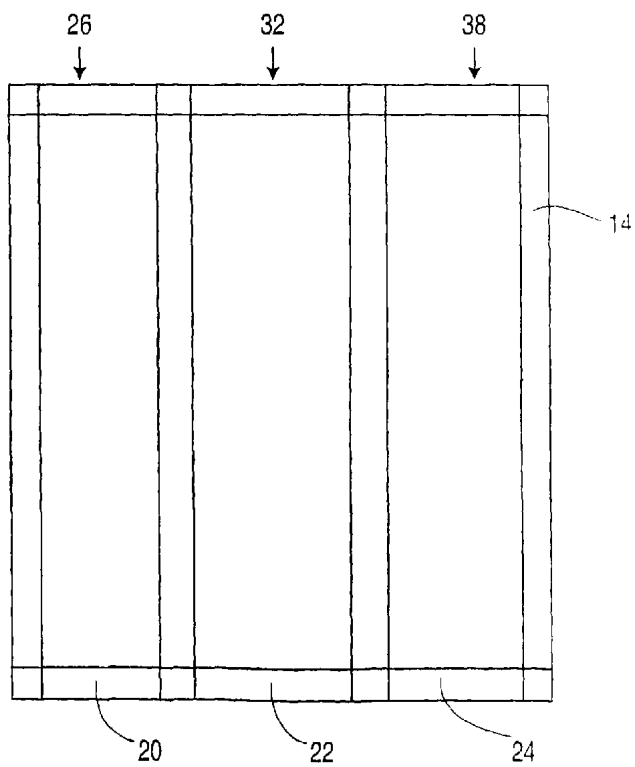
24

,

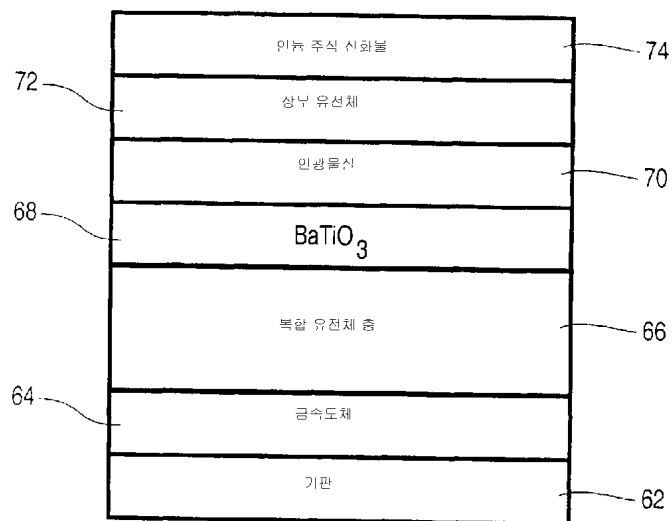
1



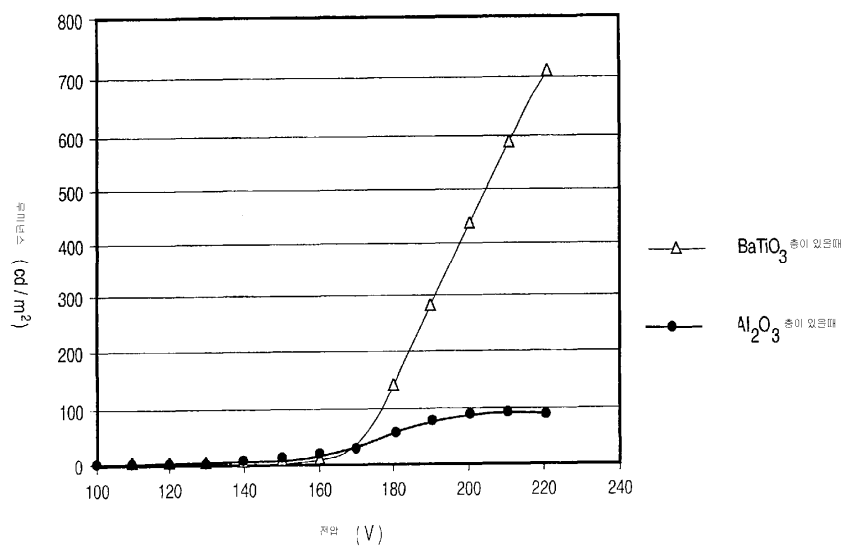
2



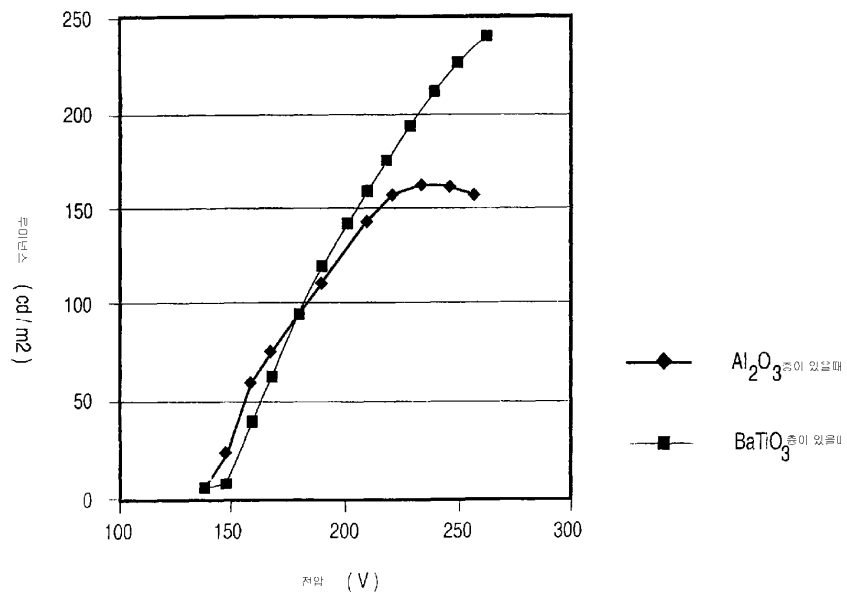
3

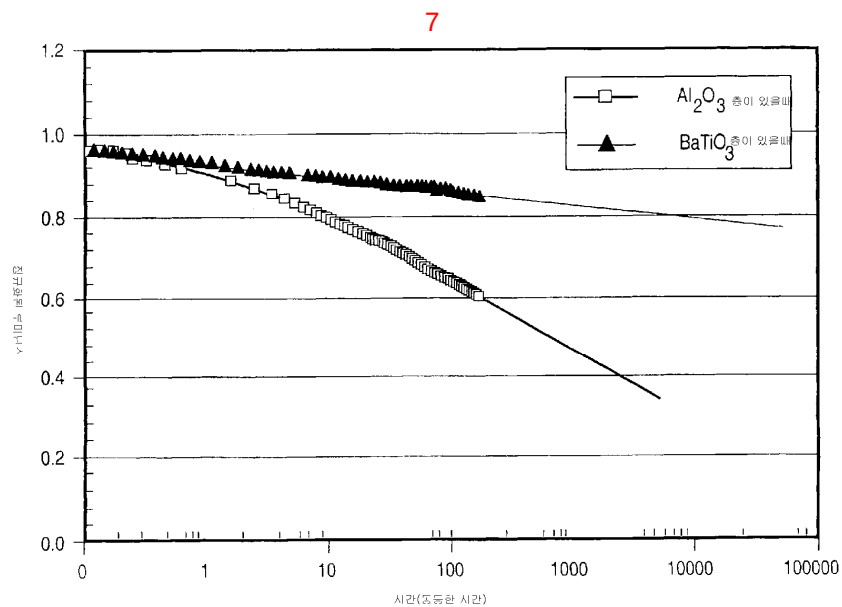
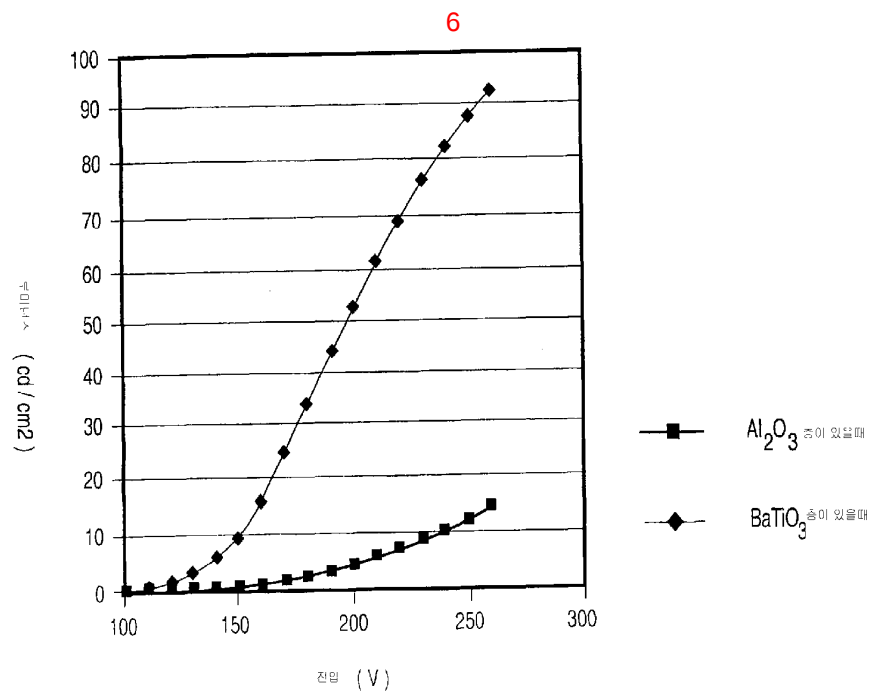


4



5





专利名称(译)	用于厚膜电致发光显示的插入层		
公开(公告)号	KR1020030081387A	公开(公告)日	2003-10-17
申请号	KR1020037009462	申请日	2002-01-10
[标]申请(专利权)人(译)	IFIRE IP CORP		
申请(专利权)人(译)	异化了的子皮细胞操作		
[标]发明人	LI WU 리우 XIN YONGBAO 신용바오 WESTCOTT MICHAEL R 웨스트코트마이클알		
发明人	리우 신용바오 웨스트코트마이클알		
IPC分类号	H05B33/22		
CPC分类号	H05B33/22 Y10S428/917 Y10T428/24942 Y10T428/2495 Y10T428/26		
代理人(译)	受害者		
优先权	09/761971 2001-01-17 US		
其他公开文献	KR100856970B1		
外部链接	Espacenet		

摘要(译)

通过这些显示器中的厚膜介电层和薄膜磷光体结构之间插入的无孔层来增强厚膜电致发光显示器的性能和稳定性。插入的层有助于提高亮度，提高能源效率和改善操作稳定性。©KIPO和WIPO 2007

