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(30) 10012326.0 2000 03 14 (DE)

(71) . . .
. . .
, , 1(72) ,
, - 52070 , 26
,
, - 52070 , 78
,
,5615 , . 57
,
,5663 , 11

(74)

:

(54)

2 (viewing angle) . (iso
tropically emitting color agent) (dichroically absorbing color agent) (photoluminescent layer) (7)

1 .

2 .

< >

1: 2: UV

3: 4, 5:

6: 7:

8: 9, 10:

, , 2 (.
) , , ,
 , 가 가 가 .
 / , , 가 .

EP 0 889 350 A1 (isotro
 pic absorption) (polarized chromatic emission)
 (viewer) ,
 (viewing angle narrowing effects of the liquid crystal layer) 가,
 2 (dichroic fluorophor), () {poly(phenyleneethynylene)
 derivatives} (polyolefin film) .

, (a very low emission qua
 ntum efficiency) , 2 (a low dichroic ratio of parallel absorption to
 perpendicular absorption), (short useful life) .

color agent) , , , { (isotropically emitting color agent) (dichroically absorbing } ,

가
가
2 가

(intermolecular energy transfer) (intramolecular energy transfer)

ylene) , (difluoromethylene) , (phenylene) , (meth
(cyclopentyl) , (spiro compounds) , (pyrazine) , (peptide) , (norbornyl)
(cyclobutyl) , (cyclohexyl) ,

2
2 (high extinction coefficient)

2
2 (excite)

가 2

2 (safegu
ard).

(stilbene derivative) 가 (perylene derivative)

$\pi \pi^*$ (absorber) (emitter) $\pi \pi^*$
2 (dichroic absorption) (bathochromically)
400nm ,

ate polymer) , 2 (anisotropic substrate) 가 (epitaxially grow) (elong

, (carrier)
 (parallaxes) 가 가
 (zonal arrangem
 ent)
 , 2 , 3
 (incident ambient light)
 (impaired)
 UV
 UV (non - absorbed UV radiation)
 UV (viewer)
 (recycling)"
 ()

1, UV (2) (1) UV (2) (3)
 (9, 10) (4, 5)
 (polynorbornene)
 (polyimide)
 SiO₂ (orientation layer) (4, 5) (6) (4, 5)
 (7) (6) 가 가 (6) (7)
 (6) TN { (twisted nematic) }
 TN , UV
 (2) , p - - p' -
 (p - alkylbenzylidene - p' - cyanoaniline), p - - p' -
 - cyanoaniline), (cyanobiphenylene), (phenylcyclohexanene),
 (biphenylcyclohexanene), (6) , STN
 () , VAN{ (vertically aligned) } , OCB{ (optically c
 ompensated bend) } (7) 2 (interlink)
 ing compounds) (pyrazine) (cyclohexyl) (cyclopentyl)
 l) (cyclobutyl) . 2 p - (p - oc
 tiphenyl) . p - 가 가
 (ramified or unramified alkyl chains) (butyl groups)
 , 16, 17 - [1,2,3 -
 cd;3',2',1' - Im] - 5,10 - (16,17 - dimethoxydinaphtho[1,2,3 - cd;3',2',1' - Im]perylene - 5,10 - dion
 e) ; [1,2,3 - cd:3',2',1' - Im] - 5,10 - (dinaphtho[1,2,3 - cd:3',2',1' - Im]perylene - 5,
 10 - dione) ; [1,2,3 - cd:1',2',3' - Im] - 9,18 - (dinaphtho[1,2,3 - cd:1',2',3' - Im]perylene - 9,18 - dione)
 3,4,9,10 - (3,4,9,10 - perylenetetracarboxylic acid)
 (diimide) 2,5 -
 (4 -) {2,5 - bis(4 - biphenyl)oxazole} (BBO) , 2 - (- 4 - yl) - 6 -
 {2 - (biphenyl - 4 - yl) - 6 - phenylbenzoxazole} (PBBO) , p - (p - terphenyl) , (cum
 arine derivative) , (phenoxazine color agent) , 3,6 - () - 9 -
 () {3,6 - bis(alkylamino) - 9 - phenylxanthylum compound (rhodamine)}
 가 가 , 4 - N,N - (4 -
 N,N - diphenylaminostilbene) , 1,4 - (4 - N,N -) {1,4 - bis(4 - N,N - diphenyl
 aminophenyl)butadiene) 1,4 - (4 - N,N -) {1,4 - bis(4 - N,N - diphenylaminos
 tyryl)benzole} , 1,3 - (4 - N,N -) {1,3 - bis(4 - N,N - diphenylaminostyryl)ben
 zole} , 1,4 - (4 - N,N -) - 3,5 - {1,4 - bis(4 - N,N - diphenylaminosty
 ryl) - 3,5 - dimethoxybenzole} , 1,4 - (4 - N,N - - 2' -) {1,4 - bis(4 - N,N -
 diphenylamino - 2' - phenylstyryl)benzole} (stilbene derivative)가 . 2
 (7) 가 가 ,
 ,
 .
 2 가 (protective layer)
 (passivating layer) (6) (7)
 (9, 10) 가 ,
 가 2

(7) (5) (8) .
 (active matrix addressing)
 (4, 5) (MIM)
 (TFT) , ITO .
 2 (6) (7) (9, 10) , ITO .
 (1) (2) (3) ,
 (6) 가 ,
 (9, 10) , UV 2 ,
 가 가
 (8)

가
 가
 (1)
 366nm (2) (1) UV
 (3) (4) (5)
 (9) (10) ITO (9, 10) (4, 5)
 (5) (7) 2 p - (p - octiphenyl)
 가
 4 - N,N - (4 - N,N - diphenylaminostilbene) ,
 (sulforhodamine) B 16, 17 - [1,2,3 - cd;
 3',2',1' - Im] - 5,10 - (cyanobiphenylene)
 (8)

(total)
 (2)
 366 nm (2) (1) UV
 (3) (4)
 (5) , (9, 10) (4,
 5) (9) (10) 90 ° ITO (7)
 (5) (7) (cyanobiphenylene)
 2 p - (p - octiphenyl) . 2 , p

1 (first phenyl ring) 2 [1,2,3 - cd:3',2',1' - lm] - 5,10 -
 2',1' - lm] - 5,10 - B , 16, 17 - [1,2,3 - cd;3',
 (8)

(total)

가 .

(57)

1.

(1) , (3) , (6) (4, 5)

(4, 5) (9, 10) (8) (7) (supporting) ,
 2 (dichroically absorbing color agent) (isotropica
 lly emitting color agent) , .

2.

1 , 2 (interlink)

3.

2 , 2 (difluoromethylene) , (peptide) , (norbornyl) ,
 (spiro compounds) , (pyrazine) , (cyclohexyl) , (cyclophen
 tyl) , (cyclobutyl) , .

4.

1 , 2 (1) (high extinct
 ion coefficient) , .

5.

1 , 2 .

6.

1 , 2 .

7.

1 (stilbene) , (perylene) , , .

8.

1 elongate polymer) , 2 (anisotropic substrate) (epitaxially grow) (

9.

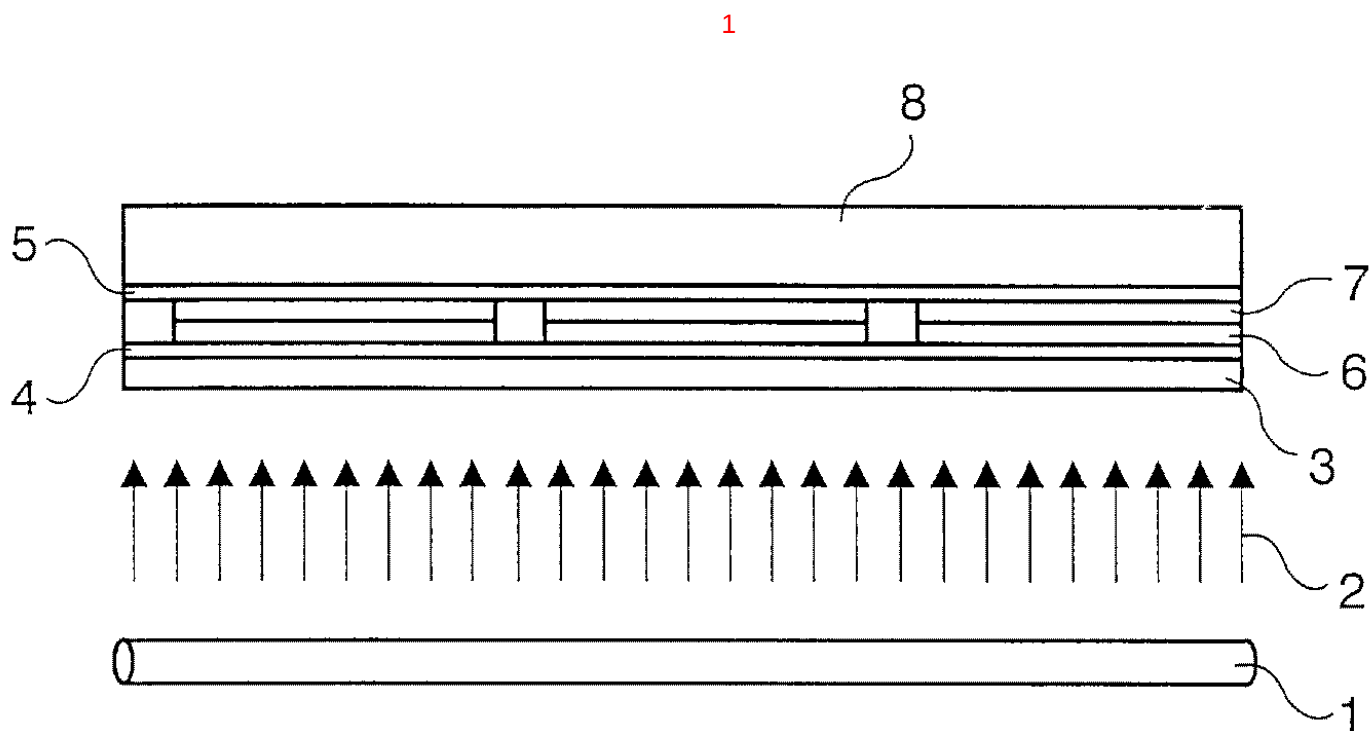
1 (zonal arrangement) (7) , (pixel - type arrangement) , , .

10.

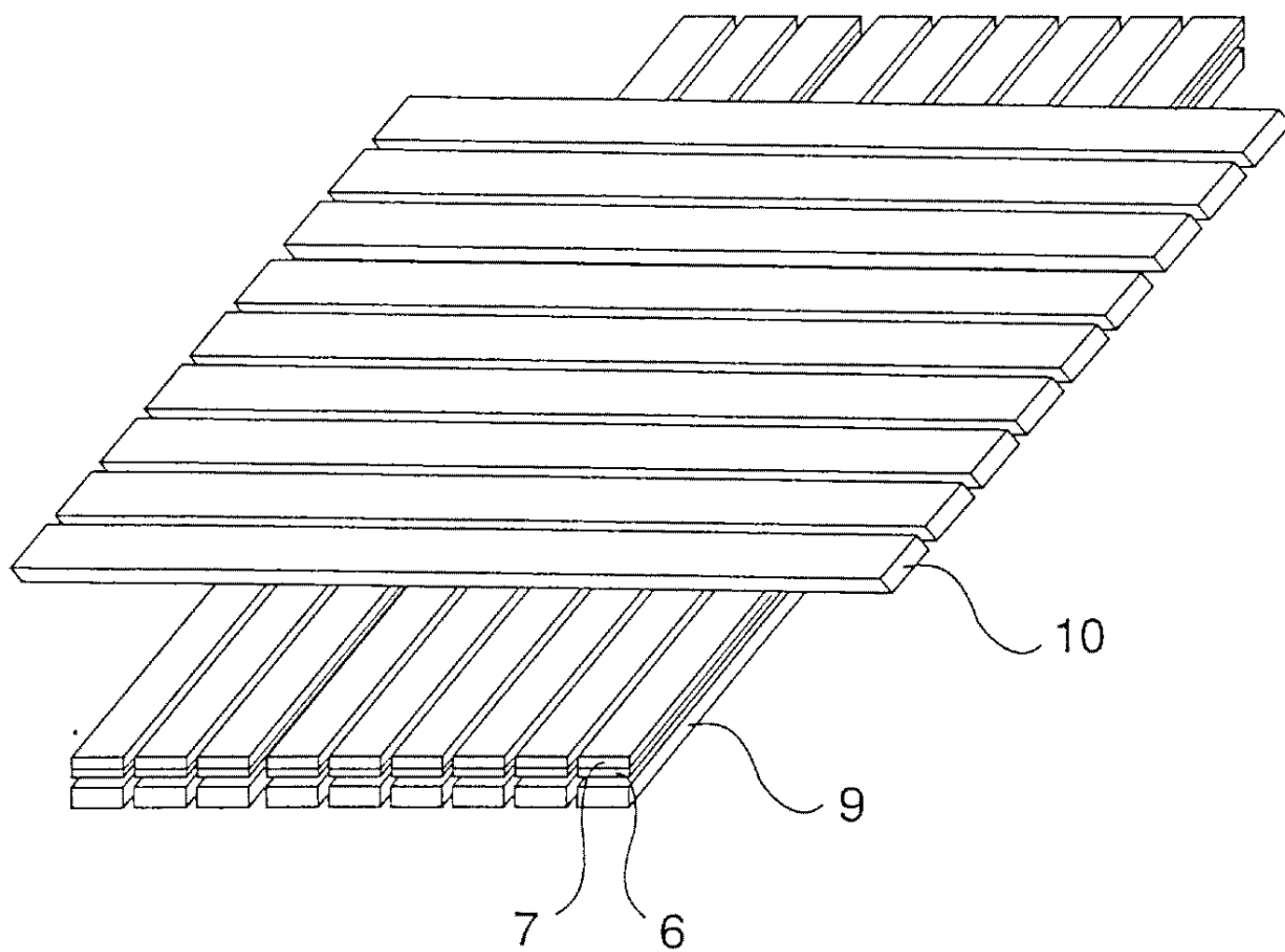
1 , (7) , .

11.

1 , (8) UV , .



2



专利名称(译)	液晶彩色图像屏		
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外部链接	Espacenet		

摘要(译)

本发明描述了一种具有改进的发光效率和改善的视角的液晶彩色图像屏幕。该液晶彩色图像屏包括光致发光层7，该光致发光层7包括二向色吸收色剂和各向同性发光色剂。 1

