



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 1 494 297 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
26.04.2006 Bulletin 2006/17

(51) Int Cl.:
H01L 51/20^(0000.00)

(43) Date of publication A2:
05.01.2005 Bulletin 2005/01

(21) Application number: **04015274.6**

(22) Date of filing: **29.06.2004**

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IT LI LU MC NL PL PT RO SE SI SK TR**
Designated Extension States:
AL HR LT LV MK

(30) Priority: **30.06.2003 KR 2003043639**

(71) Applicant: **LG ELECTRONICS INC.**
Seoul (KR)

(72) Inventor: **Lee, Ki Dong**
Seongnam-si
Gyeonggi-do (KR)

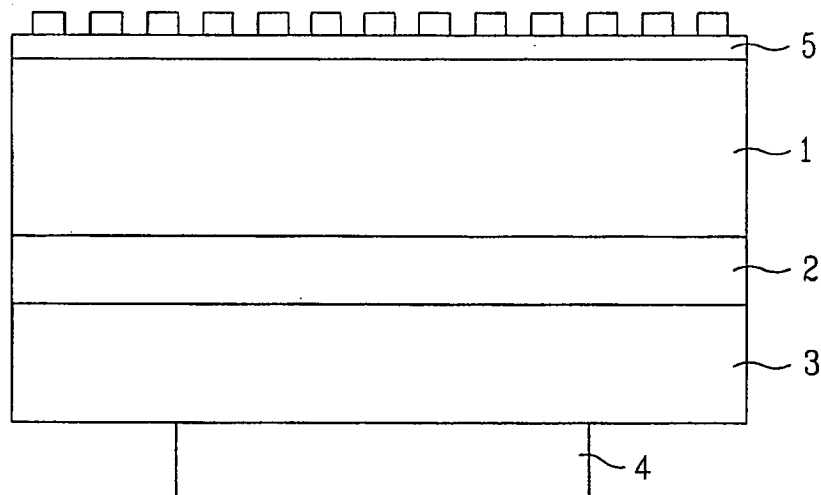
(74) Representative: **Vetter, Ewald Otto et al**
Meissner, Bolte & Partner
Anwaltssozietät GbR
(Depotstrasse 5 1/2,
86199 Augsburg),
Postfach 10 26 05
86016 Augsburg (DE)

(54) **Organic electroluminescent display**

(57) Disclosed is an organic EL (electroluminescent) display, including a transparent substrate (1), a first electrode (2) formed on the transparent substrate, an organic light emitting layer (3) formed on the first electrode, a

second electrode (4) formed on the organic light emitting layer, and a film (5) formed at a bottom of the transparent substrate and having a two-dimensional pattern on a surface thereof.

FIG. 2



EP 1 494 297 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 04 01 5274

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 04, 2 April 2003 (2003-04-02) -& JP 2002 352956 A (MITSUBISHI CHEMICALS CORP), 6 December 2002 (2002-12-06) * abstract * * paragraphs [0007], [0016], [0017], [0029] - [0032], [0047]; figure 12 * -----	1-3,7-10	H01L51/20
X	US 2002/094422 A1 (TSAI RUNG-YWAN ET AL) 18 July 2002 (2002-07-18) * paragraphs [0031], [0032]; figures 5,6a,6b *	1,3-6	
X	US 2001/033135 A1 (DUGGAL ANIL RAJ ET AL) 25 October 2001 (2001-10-25) * paragraphs [0032] - [0034], [0037] - [0039]; figure 2 * -----	1,3,5-8	
X	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 02, 5 February 2003 (2003-02-05) -& JP 2002 289340 A (MITSUMI ELECTRIC CO LTD), 4 October 2002 (2002-10-04) * abstract * * paragraphs [0010], [0013], [0015], [0026]; figures 2,3 * -----	1	TECHNICAL FIELDS SEARCHED (IPC) H01L
P,X	DATABASE WPI Section PQ, Week 200419 Derwent Publications Ltd., London, GB; Class P81, AN 2004-196355 XP002365886 -& JP 2004 039272 A (FUJI PHOTO FILM CO LTD) 5 February 2004 (2004-02-05) * abstract * * paragraphs [0010], [0018], [0020], [0028] - [0030], [0045] * ----- -/--	1-10	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 7 February 2006	Examiner Bakos, T
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

2

EPO FORM 1503 03.92 (P04C01)



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 04 01 5274

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 10, 8 October 2003 (2003-10-08) -& JP 2003 163075 A (NEC CORP), 6 June 2003 (2003-06-06) * abstract * * paragraphs [0013], [0029], [0032], [0039]; figure 4 * -----	2	
			TECHNICAL FIELDS SEARCHED (IPC)
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 7 February 2006	Examiner Bakos, T
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

2

EPO FORM 1503 03 82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 04 01 5274

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

07-02-2006

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 2002352956	A	06-12-2002	NONE	
US 2002094422	A1	18-07-2002	TW 589913 B	01-06-2004
US 2001033135	A1	25-10-2001	NONE	
JP 2002289340	A	04-10-2002	NONE	
JP 2004039272	A	05-02-2004	NONE	
JP 2003163075	A	06-06-2003	NONE	

专利名称(译)	有机电致发光显示器		
公开(公告)号	EP1494297A3	公开(公告)日	2006-04-26
申请号	EP2004015274	申请日	2004-06-29
申请(专利权)人(译)	LG电子株式会社.		
当前申请(专利权)人(译)	LG电子株式会社.		
[标]发明人	LEE KI DONG		
发明人	LEE, KI DONG		
IPC分类号	H01L51/20 G02B5/18 H01L51/50 H01L51/52 H05B33/02 H05B33/22		
CPC分类号	H01L51/5275		
优先权	1020030043639 2003-06-30 KR		
其他公开文献	EP1494297A2		
外部链接	Espacenet		

摘要(译)

公开了一种有机EL(电致发光)显示器,包括透明基板,形成在透明基板上的第一电极,形成在第一电极上的有机发光付款器,形成在有机发光层上的第二电极,以及形成的膜在透明基板的底部并且在其表面上具有二维图案。

FIG. 2

