



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
19.09.2012 Bulletin 2012/38

(51) Int Cl.:
H01L 51/50 (2006.01)

(43) Date of publication A2:
23.11.2011 Bulletin 2011/47

(21) Application number: **11166396.9**

(22) Date of filing: **17.05.2011**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME

(72) Inventors:
• **Hamada, Yuji**
446-711, Gyunggi-Do (KR)
• **Lee, Kwan-Hee**
446-711, Gyunggi-Do (KR)

(30) Priority: **18.05.2010 KR 20100046507**

(74) Representative: **Killin, Stephen James et al**
Venner Shipley LLP
200 Aldersgate
London EC1A 4HD (GB)

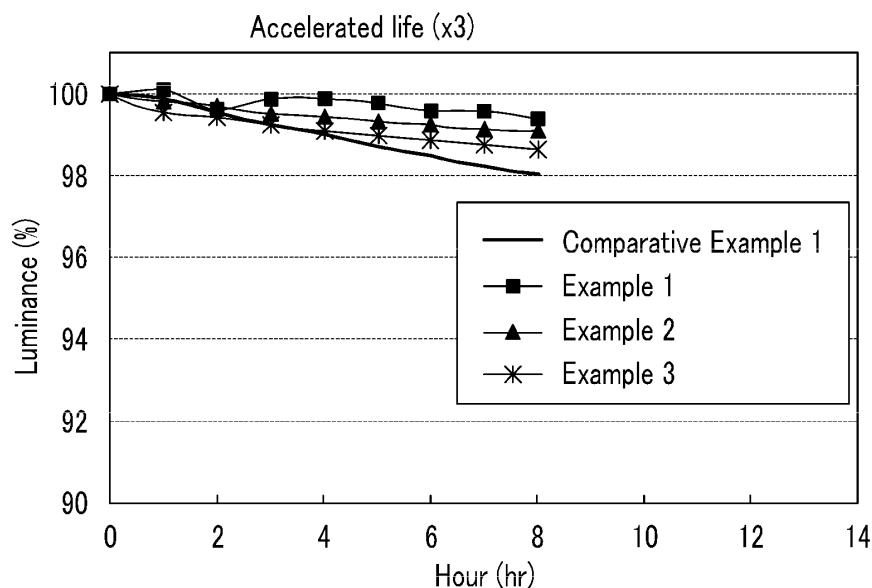
(71) Applicant: **Samsung Mobile Display Co., Ltd.**
Gyunggi-Do 446-711 (KR)

(54) **Organic material and organic light emitting diode display using same**

(57) An organic material for an organic light emitting diode (OLED) display, and an OLED display containing

the same are provided, and the organic material includes an anthracene derivative including at least one deuterium atom.

FIG.3





EUROPEAN SEARCH REPORT

Application Number
EP 11 16 6396

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	EP 2 031 037 A1 (FUJIFILM CORP [JP]) 4 March 2009 (2009-03-04) * paragraph [0097] - paragraph [0400]; compounds 1-31, 2-33, 2-34, 3-4 *	1,2,4,5, 10-12	INV. H01L51/50
X	US 2006/115678 A1 (SAITOH AKIHITO [JP] ET AL) 1 June 2006 (2006-06-01) * compounds 21,39 *	1,2, 10-12	
X	WO 2005/000787 A1 (CANON KK [JP]; SAITOH AKIHITO [JP]; SENOO AKIHIRO [JP]; UENO KAZUNORI) 6 January 2005 (2005-01-06) * page 31 - page 36; compound 58 *	1,2, 10-12	
X,P	WO 2010/071362 A2 (DOOSAN CORP [KR]; HONG JIN-SEOK [KR]; KIM KYOUNG-SOO [KR]; KIM TAE-HYU) 24 June 2010 (2010-06-24) * the whole document *	1-3	
X,P	WO 2010/099534 A2 (DU PONT [US]; LECLOUX DANIEL DAVID [US]; FENNIMORE ADAM [US]; GAO WEIY) 2 September 2010 (2010-09-02) * the whole document *	1,2,4, 10-12	TECHNICAL FIELDS SEARCHED (IPC) H01L
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 15 August 2012	Examiner Königstein, C
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			

1
EPO FORM 1503 03.82 (P04C01)

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

EP 11 16 6396

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.

15-08-2012

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 2031037 A1	04-03-2009	EP 2031037 A1	04-03-2009
		JP 2009076865 A	09-04-2009
		KR 20090023298 A	04-03-2009
		US 2009058279 A1	05-03-2009

US 2006115678 A1	01-06-2006	JP 4955971 B2	20-06-2012
		JP 2006176493 A	06-07-2006
		US 2006115678 A1	01-06-2006

WO 2005000787 A1	06-01-2005	JP 3848307 B2	22-11-2006
		JP 2005015419 A	20-01-2005
		US 2006125378 A1	15-06-2006
		WO 2005000787 A1	06-01-2005

WO 2010071362 A2	24-06-2010	KR 20100069216 A	24-06-2010
		WO 2010071362 A2	24-06-2010

WO 2010099534 A2	02-09-2010	CN 102369256 A	07-03-2012
		EP 2401341 A2	04-01-2012
		KR 20110129441 A	01-12-2011
		US 2011057173 A1	10-03-2011
		WO 2010099534 A2	02-09-2010

专利名称(译)	有机材料和使用它的有机发光二极管显示器		
公开(公告)号	EP2388843A3	公开(公告)日	2012-09-19
申请号	EP2011166396	申请日	2011-05-17
[标]申请(专利权)人(译)	三星显示有限公司		
申请(专利权)人(译)	三星移动显示器有限公司.		
当前申请(专利权)人(译)	三星DISPLAY CO. , LTD.		
[标]发明人	HAMADA YUJI LEE KWAN HEE		
发明人	HAMADA, YUJI LEE, KWAN-HEE		
IPC分类号	H01L51/50		
CPC分类号	H01L51/0058 H01L51/0055 H01L51/0056 H01L51/0077 H01L51/4273 H01L51/5012 H01L2251/308		
代理机构(译)	killin詹姆斯, 史蒂芬		
优先权	1020100046507 2010-05-18 KR		
其他公开文献	EP2388843B1 EP2388843A2		
外部链接	Espacenet		

摘要(译)

提供了一种用于有机发光二极管 (OLED) 显示器的有机材料, 以及包含该有机材料的OLED显示器, 并且所述有机材料包括含有至少一个氘原子的蒽衍生物。

FIG.3

