

(19)



(11)

EP 2 178 348 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
28.04.2010 Bulletin 2010/17

(51) Int Cl.:
H05B 33/12 (2006.01) **C09K 11/06** (2006.01)
H05B 33/14 (2006.01)

(43) Date of publication A2:
21.04.2010 Bulletin 2010/16

(21) Application number: **10152814.9**

(22) Date of filing: **13.07.2005**

(84) Designated Contracting States:
GB

(30) Priority: **23.07.2004 JP 2004215728**

(62) Document number(s) of the earlier application(s) in
accordance with Art. 76 EPC:
05765803.1 / 1 784 056

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(54) **Organic electroluminescent element, display and illuminator**

(57) An organic electroluminescent element comprising an anode; a cathode; at least two light emission layers provided between the anode and the cathode; and at least one intermediate layer provided between the two light emission layers, wherein the two light emission layers each comprise the same host compound A; one of

the two light emission layers comprises light emission dopant A and the other light emission layer comprises light emission dopant B which is different from light emission dopant A; and the intermediate layer comprises host compound A.

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EUROPEAN SEARCH REPORT

Application Number
EP 10 15 2814

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	WO 02/091814 A (UNIV PRINCETON [US]; UNIV SOUTHERN CALIFORNIA [US]) 21 November 2002 (2002-11-21) * claims 1,4,9,12 * * figure 1 * * page 16, line 6 - line 21 * * page 21, line 30 - page 25, line 14 * * page 21, line 30 - page 22, line 5 *	1-14	INV. H05B33/12 C09K11/06
Y	US 2002/027416 A1 (KIM DONG-HYUN [KR] ET AL) 7 March 2002 (2002-03-07) * claims 1-3 * * figures 1-3 * * paragraphs [0010], [0012], [0031] - [0033] * * paragraph [0010] - paragraph [0013] * * paragraph [0031] - paragraph [0039] * * paragraph [0082] *	1-14	
A	WO 2004/060026 A (SEMICONDUCTOR ENERGY LAB [JP]) 15 July 2004 (2004-07-15) * page 18, line 1 - line 14 *	4	TECHNICAL FIELDS SEARCHED (IPC)
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A	JP 2003 272857 A (IDEMITSU KOSAN CO) 26 September 2003 (2003-09-26) * paragraph [0008] - paragraph [0014] * * claims 1-16 *	1-14	
A	JP 2002 184574 A (NIPPON SEIKI CO LTD) 28 June 2002 (2002-06-28) * paragraph [0009] * * claims 1-4 *	1-14	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 22 March 2010	Examiner Ziegler, Jan
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	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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22-03-2010

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一种有机电致发光元件，包括阳极；阴极；在阳极和阴极之间提供至少两个发光层；在两个发光层之间设置至少一个中间层，其中两个发光层各自包含相同的主体化合物A；两个发光层中的一个包括发光掺杂剂A，另一个发光层包括与发光掺杂剂A不同的发光掺杂剂B；中间层包含主体化合物A。

DOCUMENTS TO BE RELEVANT			Date of completion of search	Examiner
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Y	US 2002/027416 A1 (KIM DONG-HYUN [KR] ET AL) 7 March 2002 (2002-03-07) + claims 1-3 * + figures 1-3 * + paragraphs [0010], [0012], [0031] = [0033] + paragraph [0010] - paragraph [0013] * + paragraph [0031] - paragraph [0039] * + paragraph [0082]	1-14		
A	WO 2004/060026 A (SEMICONDUCTOR ENERGY LAB JP) 15 July 2004 (2004-07-15) + page 18, line 1 - line 11 *	4	TECHNICAL FIELD OF THE INVENTION C09K	
Y	US 6 687 266 B1 (MA RTIN [US] ET AL.) 3 February 2004 (2004-02-03) + column 17, compound 8 * + claims 1-8, 17 *	12		
A	JP 2003 272857 A (IDEMITSU KOSAN CO.) 26 September 2003 (2003-09-26) + paragraph [0008] + claims 1-16 *	1-14		
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The Hague			22 March 2010	
CATEGORY OF CITED DOCUMENTS	☐ theory or publication under which the invention was first made or published; otherwise another date than the filing date; ☒ document used as prior art; ☐ technological background; ☐ other documents. ☐ translation of foreign patent, or ☐ renewal of the same patent before, expiring after			