



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
27.06.2012 Bulletin 2012/26

(51) Int Cl.:
C09K 11/06 (2006.01) **H01L 51/50** (2006.01)
H01L 51/00 (2006.01) **H05B 33/14** (2006.01)

(43) Date of publication A2:
13.06.2012 Bulletin 2012/24

(21) Application number: **12001599.5**

(22) Date of filing: **08.09.2006**

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

(30) Priority: **08.09.2005 JP 2005260247**
13.09.2005 JP 2005264773

(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC:
06797666.2 / 1 942 171

(71) Applicant: **Toray Industries, Inc.**
Tokyo, 103-8666 (JP)

(72) Inventors:
• **Murase, Seiichiro**
Otsu-shi
Shiga 520-0842 (JP)

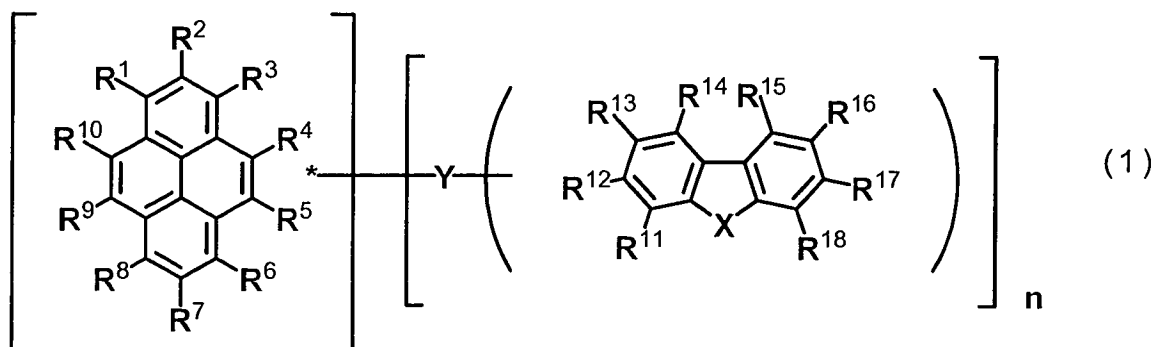
- **Nagao, Kazumana**
Otsu-shi
Shiga 520-0842 (JP)
- **Sugimoto, Kazunori**
Otsu-shi
Shiga 520-0842 (JP)
- **Ishigaki, Takeshi**
Minhang District
Shanghai City 200241 (CN)
- **Ogawa, Takafumi**
Otsu-shi
Shiga 520-0842 (JP)

(74) Representative: **Hager, Thomas Johannes**
Hoefer & Partner
Patentanwälte
Pilgersheimer Strasse 20
81543 München (DE)

(54) **Light emitting device material and light emitting device**

(57) The present invention relates to a light emitting device material containing a pyrene compound represented by the general formula (1):

[Chemical Formula 1]



wherein R¹ to R¹⁸ may be the same or different and represent a group selected from hydrogen, an alkyl group, a cycloalkyl group, a heterocyclic group, an alkenyl group, a cycloalkenyl group, an alkynyl group, an alkoxy group, an alkylthio group, an aryloxy group, an arylthio group, an aryl group, a heteroaryl group, a halogen, a carbonyl group, a

EP 2 463 351 A3

carboxyl group, an oxycarbonyl group, a carbamoyl group, an amino group, a phosphine oxide group and a silyl group; adjacent substituents among R^1 to R^{18} may be combined with each other to form a ring; n represents an integer of 1 to 3; X represents $-S-$; Y represents an arylene group or a heteroarylene group; and n substituents among R^1 to R^{10} and any one of R^{11} to R^{19} are used for linkage with Y .



EUROPEAN SEARCH REPORT

Application Number
EP 12 00 1599

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
E	EP 1 894 923 A1 (IDEMITSU KOSAN CO [JP]) 5 March 2008 (2008-03-05) * Compounds on pages 12-14, 16-19, 21-25 * * claim 6 * -----	1-8	INV. C09K11/06 H01L51/50 H01L51/00 H05B33/14
			TECHNICAL FIELDS SEARCHED (IPC) C09K
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 14 May 2012	Examiner Saldamli, Saltuk
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)

专利名称(译)	发光器件材料和发光器件		
公开(公告)号	EP2463351A3	公开(公告)日	2012-06-27
申请号	EP2012001599	申请日	2006-09-08
[标]申请(专利权)人(译)	东丽株式会社		
申请(专利权)人(译)	TORAY INDUSTRIES , INC.		
当前申请(专利权)人(译)	TORAY INDUSTRIES , INC.		
[标]发明人	MURASE SEIICHIRO NAGAO KAZUMANA SUGIMOTO KAZUNORI ISHIGAKI TAKESHI OGAWA TAKAFUMI		
发明人	MURASE, SEIICHIRO NAGAO, KAZUMANA SUGIMOTO, KAZUNORI ISHIGAKI, TAKESHI OGAWA, TAKAFUMI		
IPC分类号	C09K11/06 H01L51/50 H01L51/00 H05B33/14		
CPC分类号	C09K11/06 C09K2211/1007 C09K2211/1011 C09K2211/1029 C09K2211/1088 C09K2211/1092 H01L51/0054 H01L51/0058 H01L51/0059 H01L51/006 H01L51/0072 H01L51/0073 H01L51/0074 H01L51/0077 H01L2251/308 H05B33/14 H01L51/0067 H01L51/5024 H01L51/5072 H01L51/50		
优先权	2005260247 2005-09-08 JP 2005264773 2005-09-13 JP		
其他公开文献	EP2463351A2		
外部链接	Espacenet		

摘要(译)

[Chemical Formula 1]

本发明涉及含有通式(1)表示的芘化合物的发光器件材料：其中R1-R18可以相同或不同，并且表示选自氢，烷基，环烷基，a的基团。杂环基，链烯基，环烯基，炔基，烷氧基，烷硫基，芳基醚基，芳硫基醚基，芳基，杂芳基，卤素，羰基，羧基，氧羰基，氨基甲酰基，氨基，氧化膦基和甲硅烷基；R1-R18中的相邻取代基可以相互结合形成环；n表示1至3的整数；X代表-S-；Y表示亚芳基或亚杂芳基；R1至R10中的n个和n个取代基和R11至R19中的任何一个用于与Y连接。

