



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	US 2 944 058 A (R. KALLISCHNIGG) 5 July 1960 (1960-07-05) * column 1 - column 11 * -----	1,2	C09K11/06 H05B33/14 H05B33/22 C07D401/04
X	US 3 518 250 A (ROBERT SCHUMACKER) 30 June 1970 (1970-06-30) * example VIII *	1,2	
X	G. BOYER ET AL.: "synthesis a. structure of new hosts related to 9,9'-bianthryl" JOURNAL OF THE CHEMICAL SOCIETY, PERKIN TRANSACTIONS 2., vol. 4, 1993, pages 757-766, XP002358146 GBCHEMICAL SOCIETY. LETCHWORTH. * page 757 - page 758 *	1,2	
X	C. AVENDANO ET AL.: "the problem of the existence of c(ar)-H..N intramolecular h-bond in a family of 9-azaphenyl-9h-carbazoles." JOURNAL OF THE CHEMICAL SOCIETY, PERKIN TRANSACTIONS 2., 1993, pages 1547-1555, XP002358147 GBCHEMICAL SOCIETY. LETCHWORTH. * page 1547 - page 1549 *	1,2	TECHNICAL FIELDS SEARCHED (IPC) C07D C09K H01L
X	J. CATALAN: "on the tict mechanism of 9,9'-biaryl compounds." EUR. J. ORG. CHEM., 1998, pages 1697-1704, XP002358148 weinheim * page 1697 - page 1698; figure c9ac * ----- -/--	1,2	
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
Place of search The Hague		Date of completion of the search 8 December 2005	Examiner Francois, J
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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X	YIMING MO: "photophysical processes of some carbazole derivatives." J. OF PHOTOCHEMISTRY A. PHOTOBIOLOGY A: CHEMISTRY, vol. 92, 1995, pages 25-27, XP002358149 engl. * page 25 - page 27; figure pycz *	1,2	
X	R. PIETERS ET AL.: "passive template effects a. active acid-base involment in catalysis of organic reactions." CHEMISTRY - A EUROPEAN JOURNAL., vol. 1, no. 3, 1995, pages 183-192, XP002358150 USVCH PUBLISHERS. * page 183 - page 186 *	1,2	
X	S. GRIGALEVICIUS ET AL.: "hole-transporting molecular glasses based on carbazole a. diphenylamine moieties." MATERIALS CHEMISTRY A. PHYSICS, vol. 72, no. 3, 2001, pages 395-400, XP002980841 lausanne * page 395 - page 398; figure 9 *	1,2	
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			TECHNICAL FIELDS SEARCHED (IPC)
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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 03 70 8594

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.

08-12-2005

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2944058	A	05-07-1960	CH 360994 A	31-03-1962
			DE 1152107 B	01-08-1963
			GB 822592 A	28-10-1959

US 3518250	A	30-06-1970	DE 1695257 A1	18-03-1971
			FR 1527778 A	02-10-1968
			GB 1124594 A	21-08-1968
			IT 974512 B	10-07-1974

专利名称(译)	用于有机电致发光器件的材料和使用其制造的有机电致发光器件		
公开(公告)号	EP1486550A4	公开(公告)日	2006-02-08
申请号	EP2003708594	申请日	2003-03-13
[标]申请(专利权)人(译)	出光兴产株式会社		
申请(专利权)人(译)	出光兴产股份有限公司.		
当前申请(专利权)人(译)	出光兴产股份有限公司.		
[标]发明人	IWAKUMA TOSHIHIRO HOSOKAWA CHISHIO IKEDA HIDETSUGU TOMITA SEIJI ARAKANE TAKASHI		
发明人	IWAKUMA, TOSHIHIRO HOSOKAWA, CHISHIO IKEDA, HIDETSUGU TOMITA, SEIJI ARAKANE, TAKASHI		
IPC分类号	C09K11/06 C07D401/04 C07D401/14 C07D403/04 C07D403/14 C07D471/04 C07F15/00 H01L51/00 H01L51/30 H01L51/50 H05B33/14 H05B33/22		
CPC分类号	C07D401/04 C07D401/14 C07D403/04 C07D403/14 C07D471/04 C07F15/0033 C09K11/06 C09K2211 /1007 C09K2211/1011 C09K2211/1029 C09K2211/1044 C09K2211/1059 H01L51/0059 H01L51/0067 H01L51/0072 H01L51/0081 H01L51/0085 H01L51/5012 H01L51/5016 H01L51/5048 H01L2251/308 Y10S428/917		
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其他公开文献	EP1486550A1 EP1486550B1		
外部链接	Espacenet		

摘要(译)

一种电致发光器件材料，包括其中具有氮的杂环基团与卟啉基键合的化合物和具有至少一个夹在阴极和阳极之间的有机薄膜层的有机电致发光器件，并含有上述材料。提供至少一层。该材料可以提供发出具有高纯度颜色的蓝色光的有机电致发光器件。有机电致发光器件使用该材料。

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