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(54) **Luminescent element material and luminescent element comprising the same**

(57) A light emitting device is characterised in that it is a device having a structure in which at least an anode, an emissive layer, an electron transporting layer and a cathode are provided as layers in turn, and which emits light by means of electrical energy, and said device has a benzoquinoline derivative. The benzoquinoline derivative may have a plurality of benzoquinone skeletal structures, including a plurality of benzoquinone skeletal structures connected by conjugated bonds, an aromatic hydrocarbon, an aromatic heterocycle or mixture thereof.

Example light emitting devices have a structure in which at least an anode, an emissive layer, an electron transporting layer and a cathode are provided as layers in turn and which emits light by means of electrical energy, and the organic compound is an organic compound of molecular weight at least 400, glass transition temperature at least 90°C, ionization potential at least 5.9 eV and having a benzoquinoline skeletal structure.

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EUROPEAN SEARCH REPORT

Application Number
EP 11 16 9303

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	DE 195 05 942 A1 (BAYER AG [DE]) 22 August 1996 (1996-08-22) * Claim 1 Formula 12 * * claim 8 * * page 19, line 5 - line 15 * -----	1-9	INV. H05B33/22 H05B33/14 C09K11/06 C07D311/96 C07D471/04
X	EP 0 934 992 A1 (TOYO INK MFG CO [JP]) 11 August 1999 (1999-08-11) * table 1; compounds A-44,45 * * claims 1-10 * -----	1-9	C07D405/14 C07D409/14 C07D413/14 C07D417/14 C07D407/14 C07D335/12
X	JP 9 020885 A (TOYO INK MFG CO) 21 January 1997 (1997-01-21) * compounds 13,23,25,30 * * claim 1 * * paragraph [0019] * -----	1-9	
			TECHNICAL FIELDS SEARCHED (IPC)
			C09K H01L C07D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 15 September 2011	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			

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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.
The members are as contained in the European Patent Office EDP file on
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当前申请(专利权)人(译)	TORAY INDUSTRIES INC.		
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优先权	2000357129 2000-11-24 JP 2001173610 2001-06-08 JP		
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摘要(译)

发光器件的特征在于它是具有这样的结构的器件，其中至少阳极，发光层，电子传输层和阴极依次作为层提供，并且通过电能发光，所述装置具有苯喹啉衍生物。苯并喹啉衍生物可具有多个苯醌骨架结构，包括通过共轭键连接的多个苯醌骨架结构，芳烃，芳香杂环或其混合物。示例性发光器件具有这样的结构，其中至少阳极，发光层，电子传输层和阴极依次作为层提供并且通过电能发光，并且有机化合物是有机化合物。分子量至少为400，玻璃化转变温度至少为90°C，电离电位至少为5.9eV，并具有苯并喹啉骨架结构。



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The present search report has been drawn up for all claims		
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