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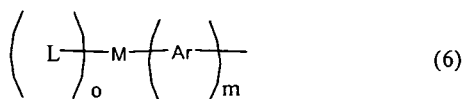
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(54) **Polymeric light emitting substance and polymer light emitting device using the same**

(57) The present invention provides a solution comprising an organic solvent and a polymeric light emitting substance, wherein the polymeric light emitting substance has a polystyrene reduced number-average molecular weight of from 10^3 to 10^8 and comprises in the side chain a metal complex structure showing light emission from the triplet excited state, wherein the metal complex structure showing light emission from the triplet excited state is of formula (6):



wherein M represents a metal atom having an atomic

number of 50 or more and showing a possibility of inter-system crossing between the singlet state and the triplet state in this complex by a spin-orbital mutual action; Ar represents a ligand bonded to M via one or more of a nitrogen atom, oxygen atom, carbon atom, sulfur atom and phosphorus atom, with bonding to a polymer at an arbitrary position; L represents a hydrogen atom, hydrocarbon group having 1 to 10 carbon atoms, carboxylate group having 1 to 10 carbon atoms, diketonate group having 1 to 10 carbon atoms, halogen atom, amide group, imide group, alkoxide group, alkylmercapto group, carbonyl ligand, arylene ligand, alkene ligand, alkyne ligand, amine ligand, imine ligand, nitrile ligand, isonitrile ligand, phosphine ligand, phosphine oxide ligand, phosphite ligand, ether ligand, sulfone ligand, sulfoxide ligand or sulfide ligand; m represents an integer of 1 to 5; and o represents an integer of 0 to 5.



EUROPEAN SEARCH REPORT

Application Number
EP 10 01 0416

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	US 5 442 021 A1 (HEILIGER LUDGER) 15 August 1995 (1995-08-15) * column 1, lines 21-29 * * column 1, lines 43-45 * * column 2, line 41 - column 4, line 55 * * column 5, lines 46-49 * -----	1-15	INV. C09K11/06 H05B33/14 H01L51/30 C08G61/02 C08G61/12 H01L51/00
A	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 14, 31 December 1998 (1998-12-31) & JP 10, 231477, A, (OKI ELECTRIC IND CO LTD), 2 September 1998 (1998-09-02) * abstract *	1-15	
A	DE 197 26 472 A1 (PHILIPS PATENTVERWALTUNG) 24 December 1998 (1998-12-24) * page 3, lines 12-32 * -----	1-15	
			TECHNICAL FIELDS SEARCHED (IPC)
			C09K H05B H01L C08G
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 20 September 2011	Examiner Kövecs, Monika
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
ON EUROPEAN PATENT APPLICATION NO.**

EP 10 01 0416

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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US 5442021	A1	NONE	
JP 10231477	A	02-09-1998	NONE
DE 19726472	A1	24-12-1998	NONE

专利名称(译)	聚合物发光物质和使用其的聚合物发光装置		
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其他公开文献	EP2258809A2 EP2258809B1		
外部链接	Espacenet		

摘要(译)

本发明提供一种包含有机溶剂和聚合物发光物质的溶液，其中所述聚合物发光物质的聚苯乙烯的数均分子量为103-108，并且在侧链中包含显示发光的金属络合物结构。从三重激发态，其中显示来自三重激发态的发光的金属络合物结构具有式(6)：其中M表示原子序数为50或更大的金属原子并且显示出单线态之间的系统间交叉的可能性通过自旋-轨道相互作用在该复合体中的状态和三重态；Ar表示通过氮原子，氧原子，碳原子，硫原子和磷原子中的一个或多个与M键合的配体，在任意位置与聚合物键合；L表示氢原子，碳原子数1~10的烃基，碳原子数1~10的羧酸酯基，碳原子数1~10的二酮基，卤原子，酰胺基，酰亚胺基，醇盐基，烷基硫基，羰基配体，亚芳基配体，烯基配体，炔基配体，胺配体，亚胺配体，腈配体，异腈配体，膦配体，氧化膦配体，亚磷酸酯配体，醚配体，砜配体，亚砜配体或硫化物配体；m表示1至5的整数；o表示0至5的整数。

