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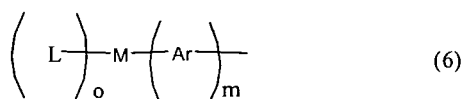
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(54) **Polymeric light emitting substance and polymer light emitting device using the same**

(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 main 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 0415

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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
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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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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，并且在主链中包含显示发光的金属络合物结构。从三重激发态开始，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单重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表示与M键合的配体通过氮原子，氧原子，碳原子，硫原子和磷原子中的一个或多个，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，磷配体，氧化磷配体，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的整数到5。

