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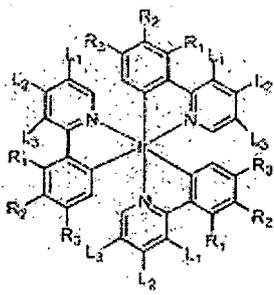
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(54) Iridium-based luminescent compounds having phenylpyridine moieties with organosilicon group, and organic electroluminescence devices using the compounds as colour-emitting materials

(57) Disclosed are iridium-based luminescent compounds having phenylpyridine moieties with an organosilicon group, and organic electroluminescence devices using the compounds as color-producing materials. The luminescent compounds have the structure of Formula 1 below:

wherein L<sub>1</sub>, L<sub>2</sub>, L<sub>3</sub>, R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub>, which may be identical to or different from each other, are each independently selected from the group consisting of aryl, alkoxy, alkyl, and groups of Formulae 2 and 3 below:



(1)



(2)

wherein D<sub>1</sub>, D<sub>2</sub> and D<sub>3</sub> are each independently selected from the group consisting of C<sub>1-18</sub> alkyl, C<sub>1-18</sub> alkoxy, substituted or unsubstituted C<sub>1-18</sub> alkyl and allyl, and substituted or unsubstituted C<sub>6-18</sub> fluorinated alkyl and allyl groups;



(3)

wherein D<sub>4</sub>, D<sub>5</sub> and D<sub>6</sub> are each independently selected from the group consisting of C<sub>1-18</sub> alkyl, C<sub>1-18</sub> alkoxy, substituted or unsubstituted C<sub>1-18</sub> alkyl and allyl, and substituted or unsubstituted C<sub>6-18</sub> fluorinated alkyl and allyl groups.



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	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 08, 6 August 2003 (2003-08-06) & JP 2003 113161 A (MITSUBISHI MATERIALS CORP), 18 April 2003 (2003-04-18) * abstract *	1-12	INV. C09K11/06 H05B33/14 H01L51/30 C07F15/00
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A	----- PATENT ABSTRACTS OF JAPAN vol. 2002, no. 08, 5 August 2002 (2002-08-05) & JP 2002 105055 A (FUJI PHOTO FILM CO LTD), 10 April 2002 (2002-04-10) * abstract *	1-12	
			TECHNICAL FIELDS SEARCHED (IPC)
			C09K
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 17 May 2006	Examiner Wengeler, H
CATEGORY OF CITED DOCUMENTS		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	
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			

1  
EPO FORM 1503 03.02 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 05 02 1642

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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17-05-2006

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	具有苯基吡啶部分和有机硅基团的铱基发光化合物，以及使用该化合物作为发色材料的有机电致发光器件		
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外部链接	<a href="#">Espacenet</a>		

摘要(译)

公开了具有带有机硅基团的苯基吡啶部分的铱基发光化合物，以及使用该化合物作为产色材料的有机电致发光器件。发光化合物具有下式1的结构：其中L1, L2, L3, R1, R2和R3可以彼此相同或不同，各自独立地选自芳基，烷氧基，烷基，和式2和3的基团；其中D1, D2和D3各自独立地选自C1-18烷基，C1-18烷氧基，取代或未取代的C1-18烷基和烯丙基，和取代或未取代的C6~18个氟化烷基和烯丙基；其中D4, D5和D6各自独立地选自C1-18烷基，C1-18烷氧基，取代或未取代的C1-18烷基和烯丙基，和取代或未取代的C6-18氟代烷基和烯丙基。

