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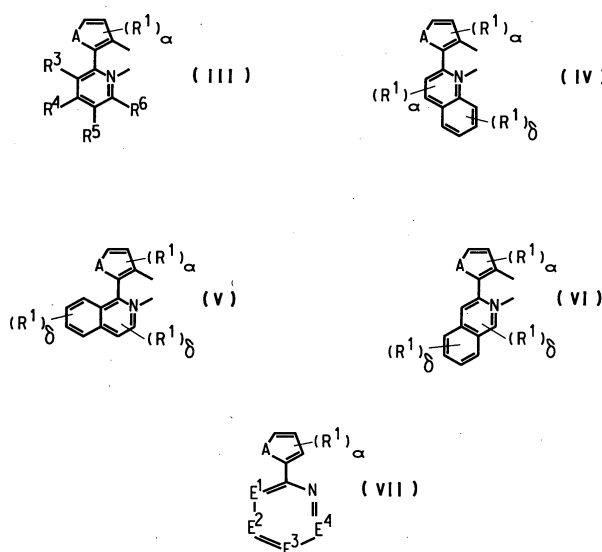
- **Lecloux, Daniel David  
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**(54) Electroluminescent iridium compounds**

(57) The present invention relates to electroluminescent Ir(III) complexes, and active layers and devices com-

prising the Ir(III) complexes. The complexes have emission maxima in the red-orange to red region of the visible spectrum.

**FIG. 1**



## EUROPEAN SEARCH REPORT

Application Number  
EP 10 01 2661

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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 16 April 2012	Examiner Lehnert, Andreas
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	

 1  
EPO FORM 1503 03.02 (P04C01)



## EUROPEAN SEARCH REPORT

Application Number  
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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 16 April 2012	Examiner Lehnert, Andreas
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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 &amp; : member of the same patent family, corresponding document</p>			

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Application Number

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**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

**LACK OF UNITY OF INVENTION**

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☒ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION  
SHEET B**

Application Number

EP 10 01 2661

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-9(partially)

An active layer or an electroluminescent device comprising at least one compound selected from IrL3 and IrL2Z with L corresponding to Formula VII as disclosed in claim 1.

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2. claims: 1-9(partially)

An active layer or an electroluminescent device comprising at least one compound selected from IrL3 and IrL2Z with L corresponding to Formula VIII as disclosed in claim 1.

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3. claims: 1-9(partially)

An active layer or an electroluminescent device comprising at least one compound selected from IrL3 and IrL2Z with L corresponding to Formula IX as disclosed in claim 1.

---

4. claims: 1-9(partially)

An active layer or an electroluminescent device comprising at least one compound selected from IrL3 and IrL2Z with L corresponding to Formula X as disclosed in claim 1.

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5. claims: 6-9(partially)

A compound of formula 1-c, table 1

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6. claims: 6-9(partially)

A compound of formula 1-d, table 1

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7. claims: 6-9(partially)

A compound of formula 1-e, table 1

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8. claims: 6-9(partially)

A compound of formula 1-f, table 1

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9. claims: 6-9(partially)

A compound of formula 1-i, table 1



**LACK OF UNITY OF INVENTION  
SHEET B**

Application Number

EP 10 01 2661

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

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10. claims: 6-9(partially)

A compound of formula 1-j, table 1

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11. claims: 6-9(partially)

A compound of formula 1-k, table 1

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12. claims: 6-9(partially)

A compound of formula 1-l, table 1

---

13. claims: 6-9(partially)

A compound of formula 1-m, table 1

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

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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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专利名称(译)	电致发光铱化合物		
公开(公告)号	<a href="#">EP2325279A3</a>	公开(公告)日	2012-05-30
申请号	EP2010012661	申请日	2002-11-04
[标]申请(专利权)人(译)	纳幕尔杜邦公司		
申请(专利权)人(译)	E·I·杜邦和公司		
当前申请(专利权)人(译)	E·I·杜邦和公司		
[标]发明人	LECLOUX DANIEL DAVID PETROV VIACHESLAV A WANG YING		
发明人	LECLOUX, DANIEL DAVID PETROV, VIACHESLAV A. WANG, YING		
IPC分类号	C09K11/06 H05B33/14 H01L51/50 C07D215/10 C07D217/10 C07D217/16 C07D401/04 C07D409/04 C07F15/00 H01L51/30		
CPC分类号	H01L51/0085 C07D409/04 C07F15/0033 C09K11/06 C09K2211/1007 C09K2211/1011 C09K2211/1029 C09K2211/1092 C09K2211/185 H01L51/0035 H01L51/0036 H01L51/0038 H01L51/0039 H01L51/0042 H01L51/0059 H01L51/0086 H01L51/0094 H01L51/5012 H01L51/5016 H01L51/5048 H05B33/14 Y10S428/917		
代理机构(译)	TOWLER , PHILIP DEAN		
优先权	60/347911 2001-11-07 US		
其他公开文献	EP2325279A2		
外部链接	<a href="#">Espacenet</a>		

# 摘要(译)

本发明涉及电致发光Ir ( III ) 配合物，以及包含Ir ( III ) 配合物的活性层和器件。该配合物在可见光谱的红橙色至红色区域具有发射最大值。

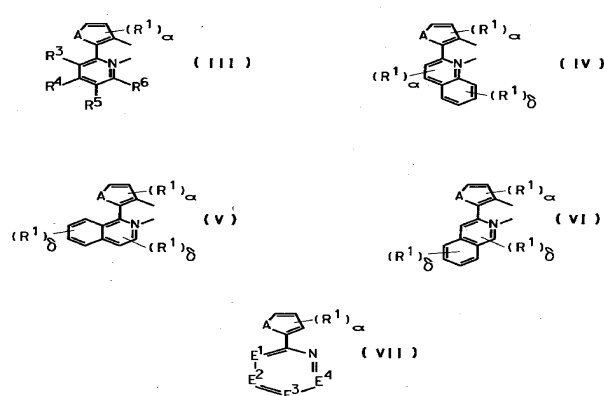


FIG. 1