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(30) Priority: **21.09.2000 JP 2000287489**

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(54) **Phosphor thin film, preparation method and EL panel**

(57) The invention aims to provide a phosphor thin film eliminating a need for filters, having a satisfactory color purity and useful as the blue color in full-color EL displays, a method for preparing the same and an EL panel. Such objects are achieved by a phosphor thin film formed of a matrix material comprising barium thioalu-

minate as a main component to which magnesium is added and rare earth element, Eu is added as a luminescent center, a method for preparing the same, and an EL panel using the same.



European Patent  
Office

EUROPEAN SEARCH REPORT

Application Number  
EP 01 30 5842

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X,D	PATENT ABSTRACTS OF JAPAN vol. 1995, no. 08, 29 September 1995 (1995-09-29) & JP 7 122364 A (MATSUSHITA ELECTRIC IND CO LTD), 12 May 1995 (1995-05-12) * abstract *	1,3,4	C09K11/80 H05B33/14
A	----- KAWANISHI M ET AL: "EU2+-DOPED BARIUM THIOALUMINATE EL DEVICES PREPARED BY TWO-TARGET PULSED-ELECTRON-BEAM EVAPORATION" JOURNAL OF THE SOCIETY FOR INFORMATION DISPLAY, SOCIETY FOR INFORMATION DISPLAY, SAN JOSE, US, vol. 8, no. 3, 1 December 1999 (1999-12-01), pages 247-251, XP009007409 ISSN: 1071-0922 * pages 247-251 *	1-6	
E	----- DATABASE WPI Section Ch, Week 200232 Derwent Publications Ltd., London, GB; Class E12, AN 2002-273370 XP002255646 & JP 2001 297877 A (NIPPON HOSO KYOKAI KK) 26 October 2001 (2001-10-26) * abstract *	1-6	TECHNICAL FIELDS SEARCHED (Int.Cl.7)  C09K H05B
The present search report has been drawn up for all claims			
Place of search <b>The Hague</b>		Date of completion of the search <b>22 October 2003</b>	Examiner <b>Drouot, M-C.</b>
<b>CATEGORY OF CITED DOCUMENTS</b> 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	

EPO FORM 1503 03.82 (P04C01)

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

EP 01 30 5842

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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22-10-2003

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 7122364	A	12-05-1995	JP 2840185 B2	24-12-1998
JP 2001297877	A	26-10-2001	NONE	

EPO FORM P0459

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

专利名称(译)	磷光体薄膜，制备方法和EL面板		
公开(公告)号	<a href="#">EP1191081A3</a>	公开(公告)日	2003-12-17
申请号	EP2001305842	申请日	2001-07-06
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IPC分类号	H05B33/10 C09K11/00 C09K11/08 C09K11/64 C09K11/77 C09K11/80 H05B33/14		
CPC分类号	H05B33/14 C09K11/7734 Y10S428/917		
优先权	2000287489 2000-09-21 JP		
其他公开文献	EP1191081B1 EP1191081A2		
外部链接	<a href="#">Espacenet</a>		

摘要(译)

本发明的目的是提供一种不需要滤光器的磷光体薄膜，具有令人满意的色纯度并且在全色EL显示器中用作蓝色，其制备方法和EL面板。这些目的是通过由基质材料形成的磷光体薄膜实现的，该基质材料包括添加镁的硫代铝酸钡作为主要成分和稀土元素，添加Eu作为发光中心，其制备方法和EL面板使用相同的。

DOCUMENTS CONSIDERED TO BE RELEVANT		Relevant to claim	CLASSIFICATION OF THE APPLICATION (In Class)
X, D	PATENT ABSTRACTS OF JAPAN Vol. 1995, no. 95 (1995-09-29) 29 September 1995 & JP 7 122364 A (MITSUBISHI ELECTRIC IND CO LTD), 12 May 1995 (1995-05-12) " abstract "	1, 3, 4	C09K11/80 H05B33/14
A	KAWABISHI H ET AL: "Eu2+-DOPED BARIUM THIOALUMINATE EL DEVICES PREPARED BY THIO-TARGET PULSED-ELECTRON-BEAM EVAPORATION" JOURNAL OF THE SOCIETY FOR INFORMATION DISPLAY, SOCIETY FOR INFORMATION DISPLAY, SAN JOSE, US, vol. 6, no. 3, 1 December 1999 (1999-12-01), pages 247-251, XP00907409 ISSN: 1071-0022 " pages 247-251 "	1-6	
E	DATABASE WPI Section CN, Week 200232 Derwent Publications Ltd., London, GB; Class. E2C, AN 2002-273379 XP002255646 & JP 2001 29877 A (NIPPON HOSO KYOKAI KK) 26 October 2001 (2001-10-26) " abstract "	1-6	TECHNICAL FIELD(S) SEARCHED (In Class) C09K H05B

The present search report has been drawn up for all claims

Place of search	The Hague	Date of completion of the search	22 October 2003	Examiner	Drouot, M-C.
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**CATEGORY OF CITED DOCUMENTS**

X: essentially relevant to claim alone  
 Y: essentially relevant in combination with another document of the same kind  
 A: non-relevant abstract  
 D: non-prior art document  
 E: non-prior art document

1: theory or principle underlying the invention  
 2: document which has been published on or after the filing date of the application  
 3: document cited in the application document  
 4: document cited for other reasons  
 5: member of the same patent family, corresponding document