

(19)



Europäisches Patentamt  
European Patent Office  
Office européen des brevets

(11) Publication number:

**0 249 942  
A3**

(12)

## EUROPEAN PATENT APPLICATION

(21) Application number: **87108638.5**

(51) Int. Cl.4: **H05B 33/14 , C09K 11/84 ,  
C09K 11/61 , C09K 11/56**

(22) Date of filing: **16.06.87**(30) Priority: **19.06.86 JP 141473/86**

(43) Date of publication of application:  
**23.12.87 Bulletin 87/52**

(84) Designated Contracting States:  
**DE FR GB**

(88) Date of deferred publication of the search report:  
**09.08.89 Bulletin 89/32**

(71) Applicant: **Tosoh Corporation  
4560, Oaza Tonda  
Shinnanyo-shi Yamaguchi-ken(JP)**

(72) Inventor: **Takahashi, Koyata  
7-37-17, Sagamiono  
Sagamihara-shi Kanagawa(JP)**  
Inventor: **Ohnuki, Yukio  
3-18-6, Nakamachi  
Machida-shi Tokyo(JP)**  
Inventor: **Kondoh, Akio  
1775, Okada  
Atsugi-shi Kanagawa(JP)**

(74) Representative: **Vossius & Partner  
Siebertstrasse 4 P.O. Box 86 07 67  
D-8000 München 86(DE)**

(54) **Thin film electroluminescent layer material.**

(57) Disclosed is a thin film electroluminescent layer of a thin film electroluminescent device comprising, as a light-emitting medium, a body of a mixture of ZnS and at least one sulfide selected from MgS, CaS, SrS and BaS. The ZnS and the selected sulfide are doped with a transition metal or rare earth element which is optically active in the matrix. This EL device has good moisture resistance and weatherability and is capable of emitting a color with a high brightness.

**EP 0 249 942 A3**



EP 87 10 8638

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.4)
X	GB-A-1 469 230 (THE SECRETARY OF STATE FOR DEFENCE) * Whole document * ---	1-3	H 05 B 33/14 C 09 K 11/84 C 09 K 11/61 C 09 K 11/56
A,P	EP-A-0 209 668 (SHARP) * Page 9, lines 6-25; claims 1-21 * ---	1,4	
A,P	DE-A-3 633 311 (RICOH) * Whole document * -----	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			H 05 B 33/00 C 09 K 11/00
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 29-05-1989	Examiner DROUOT M.C.
<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			