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(54) **Luminescent material, luminescent material complex and method of manufacturing the same, fluorescent labeling reagent and method of manufacturing the same, and light emitting element**

(57) A light emitting element, includes: (A) a luminescent material which is obtained from a plant-derived material as a raw material, and which contains therein a silicon oxide containing therein silicon having a content

rate of 40 wt.% or more, and oxygen having a content rate of 40 wt.% or more as a principal component; (B) a fluorescent substance adsorbed on a surface of the luminescent material; and (C) an energy source for exciting the luminescent material and the fluorescent substance.

FIG. 7A

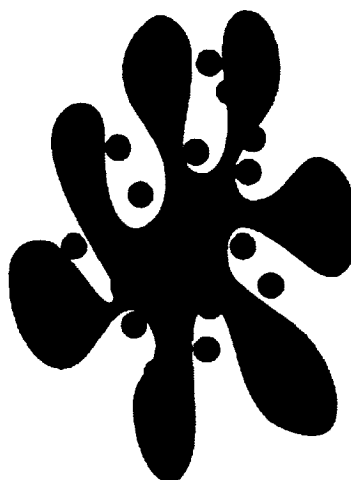
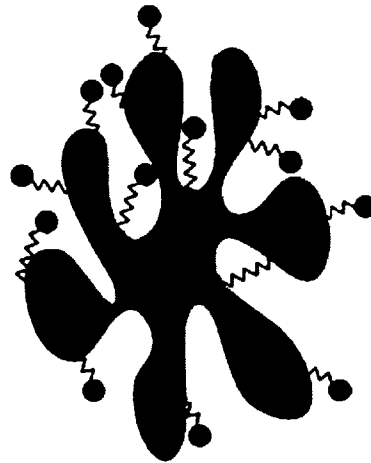


FIG. 7B



**PARTIAL EUROPEAN SEARCH REPORT**

Application Number

under Rule 62a and/or 63 of the European Patent Convention.
This report shall be considered, for the purposes of
subsequent proceedings, as the European search report

EP 10 00 2082

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	JP 4 289691 A (MITSUBISHI CABLE IND LTD) 14 October 1992 (1992-10-14) * paragraph [0009] * * paragraph [0021] * * claim 1 * -----	1-5,8, 11-15,17	INV. C09K11/02
X	US 6 600 175 B1 (BARETZ BRUCE [US] ET AL) 29 July 2003 (2003-07-29) * paragraph [0022] - paragraph [0023] * -----	1-5,8, 11-15,17	
X	RAO A. P., RAO A. V.: "Luminiscent dye Rhodamine 6G doped monolithic and transparentTEOS silica xerogels and spectral properties" SCIENCE AND TECHNOLOGY OF ADVANCED MATERIALS, vol. 4, no. 2, May 2003 (2003-05), pages 121-129, XP002609178 * Chapter 1 * * Chapter 2.1 * * abstract * -----	1-5,8, 11-15,17	
			TECHNICAL FIELDS SEARCHED (IPC)
			C09K
INCOMPLETE SEARCH			
The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC so that only a partial search (R.62a, 63) has been carried out. Claims searched completely : Claims searched incompletely : Claims not searched : Reason for the limitation of the search: see sheet C			
Place of search Munich		Date of completion of the search 11 November 2010	Examiner Saldamli, Saltuk
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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PARTIAL EUROPEAN SEARCH REPORT

Application Number
EP 10 00 2082

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	KALAPATHY U., PROCTOR A., SHULTZ J.: "An improved method for production of silica from rice hull ash" BIORESOURCE TECHNOLOGY, vol. 85, no. 3, December 2002 (2002-12), pages 285-289, XP002609179 * the whole document * -----	1-5,8,11-15,17	
			TECHNICAL FIELDS SEARCHED (IPC)

**INCOMPLETE SEARCH
SHEET C**Application Number
EP 10 00 2082

Claim(s) completely searchable:
1-5, 8, 11-15, 17

Claim(s) not searched:
6, 7, 9, 10, 16, 18-20

Reason for the limitation of the search:

The subject-matter of claims 1-20 does not comply with the requirements of Rule 43(2) EPC, as claims 1,6-7 and 8-10 and 11, 16 and 17-20 are independent claims falling within the same category. Therefore, an invitation pursuant to Rule 62a(1) EPC was sent to the Applicant on 03.08.2010. Since the Applicant failed to reply to this invitation in due time, first to be claimed in each category and their respective dependent claims have been chosen as the subject-matter to be searched; namely, claims 1-5 (a light emitting element), claim 8 (a luminescent material complex), claims 11-15 (a fluorescent labeling reagent), and claim 17 (a method of manufacturing a luminescent material complex).

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

EP 10 00 2082

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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11-11-2010

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 4289691	A	14-10-1992	NONE	

US 6600175	B1	29-07-2003	US 2008224597 A1	18-09-2008
			US 2008224598 A1	18-09-2008
			US 2004016938 A1	29-01-2004

专利名称(译)	发光材料，发光材料复合物及其制造方法，荧光标记试剂及其制造方法，以及发光元件		
公开(公告)号	EP2230289A3	公开(公告)日	2011-01-12
申请号	EP2010002082	申请日	2010-03-01
[标]申请(专利权)人(译)	索尼公司		
申请(专利权)人(译)	索尼公司		
当前申请(专利权)人(译)	索尼公司		
[标]发明人	TABATA SEIICHIRO YAMADA SHINICHIRO NOGUCHI TSUTOMU		
发明人	TABATA, SEIICHIRO YAMADA, SHINICHIRO NOGUCHI, TSUTOMU		
IPC分类号	C09K11/02		
CPC分类号	C09K11/02 C09K11/59 H01L2224/48091 H01L2924/00014		
优先权	2009064566 2009-03-17 JP		
其他公开文献	EP2230289B1 EP2230289A2		
外部链接	Espacenet		

摘要(译)

发光元件包括：(A) 发光材料，其由作为原料的植物来源材料获得，并且其中包含含有40% (重量) 或更高含量的硅的氧化硅，和含有率为40% (重量) 或更多的氧作为主要成分；(B) 吸附在发光材料表面上的荧光物质；(C) 用于激发发光材料和荧光物质的能量源。

FIG.7A

