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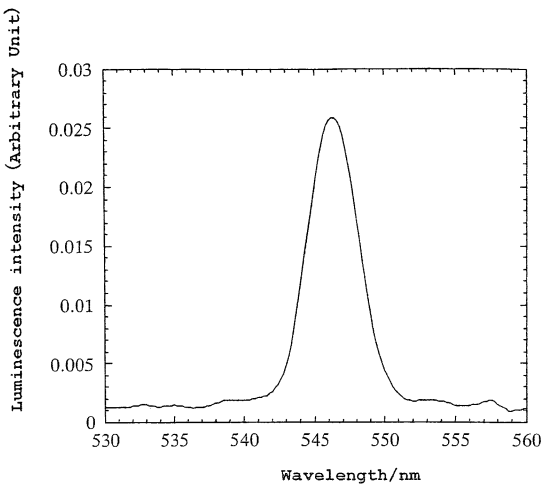
(54) Electroluminiscent material and electroluminiscent element using the same

(57) The present invention provides electroluminescent materials that emit very bright light with little energy consumption, little loss of energy converted into heat, etc., and suffers from little deterioration due to long-term use, in particular, inorganic electroluminescent materials that emit blue to green light having a wavelength shorter than yellow.

Specifically, the present invention relates to the following types of electroluminescent material:
(1) An electroluminescent material including an oxide having a perovskite-type crystal structure represented by General Formula R_2CuO_4, wherein R is at least one rare-earth element; and
(2) an electroluminescent material including an oxide having a perovskite-type crystal structure represented by General Formula $RZ_2Cu_3O_6$, wherein R is at least one rare-earth element, and Z is at least one alkali-earth metal.

Fig. 1



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EUROPEAN SEARCH REPORT

Application Number
EP 10 00 8432

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	4 May 2011	Saldamli, Saltuk

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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A : technological background
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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
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DOCUMENTS CONSIDERED TO BE RELEVANT

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Munich	4 May 2011	Saldamli, Saltuk

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X	& DRAEGER G: "Resonant X-ray scattering and electronic structure of matter: Some results from FeO, [alpha]-Fe2O3 and La2CuO4", SURFACE INVESTIGATION X-RAY, SYNCHROTRON AND NEUTRON TECHNIQUES 1998 GORDON & BREACH SCIENCE PUBL INC, vol. 13, no. 4-5, 1998, pages 447-454, XP009147742, * Experimental * -----	1,4	

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专利名称(译)	电致发光材料和使用其的电致发光元件		
公开(公告)号	EP2246410A3	公开(公告)日	2011-06-15
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[标]申请(专利权)人(译)	独立行政法人科学技术振兴机构		
申请(专利权)人(译)	日本科学技术振兴机构		
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其他公开文献	EP2246410B1 EP2246410A2		
外部链接	Espacenet		

摘要(译)

本发明提供的电致发光材料发出非常明亮的光，能量消耗少，转换成热量的能量损失很少等，并且由于长期使用而几乎没有劣化，特别是发蓝光至绿色的无机电致发光材料。波长短于黄色的光。具体地，本发明涉及以下类型的电致发光材料：（1）一种电致发光材料，其包括具有通式R2CuO4表示的钙钛矿型晶体结构的氧化物，其中R是至少一种稀土元素;（2）一种电致发光材料，包括具有通式RZ2Cu3O6表示的钙钛矿型晶体结构的氧化物，其中R是至少一种稀土元素，Z是至少一种碱土金属。

Fig. 1