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(54) Title: DIELECTRIC BARRIER DISCHARGE LAMP COMPRISING AN UV-B PHOSPHOR

(57) Abstract: This invention relates to a dielectric barrier Xe discharge lamp comprising an UV-B phosphor. The lamp consists of a gas-tight, discharge vessel with a gas filling containing Xe or a Xe/Ne mixture and is provided with a luminescent layer, which comprises at least one luminescent material emitting in the UV-B range (280 to 320 nm). The luminescent layer comprises a Gd^{3+} activated phosphor according to the formulas $McPO_4 \cdot Gd$, $La_{1-x}Al_3(BO_3)_4 \cdot Gd_x$, and $La_{1-x}B_3O_6 \cdot Gd_x$ which is eventually sensitised by Bi^{3+} , Pr^{3+} or Nd^{3+} . The advantages of such an UV-B emitting discharge lamp over fluorescent lamps based on a Hg low-pressure discharge are a high power density, 10 instant light, long lifetime, a spectral power distribution which is only determined by the phosphor blend, and an arbitrary burner design.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, INSPEC, COMPENDEX, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	paragraphs [0004] - [0011]; claims 1-14 -----	3
A	US 2002/041145 A1 (YOKOSAWA NOBUYUKI ET AL) 11 April 2002 (2002-04-11) paragraphs [0055] - [0060]; claims 1-13; tables 1,2 -----	1-6
A	EP 1 111 025 A (SUMITOMO CHEMICAL COMPANY, LIMITED) 27 June 2001 (2001-06-27) paragraphs [0003] - [0005]; claims 1-10; examples 1-6 -----	1-6



Further documents are listed in the continuation of Box C.



See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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