

Title (en)
ILLUMINATION SYSTEM COMPRISING A RADIATION SOURCE AND A FLUORESCENT MATERIAL

Title (de)
BELEUCHTUNGSSYSTEM MIT STRAHLUNGSQUELLE UND FLUORESZIERENDEM MATERIAL

Title (fr)
SYSTEME D'ECLAIRAGE COMPRENANT UNE SOURCE DE RAYONNEMENTS ET UNE MATIERE FLUORESCENTE

Publication
EP 1819799 A1 20070822 (EN)

Application
EP 05819206 A 20051123

Priority

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- EP 05819206 A 20051123

Abstract (en)
[origin: WO2006059260A1] An illumination system, comprising a radiation source and a fluorescent material comprising at least one phosphor capable of absorbing a part of light emitted by the radiation source and emitting light of wavelength different from that of the absorbed light; wherein said at least one phosphor is a yellow red-emitting ytterbium(II)-activated oxonitridosilicate of general formula $(\text{Sr}_{1-x-y-z}\text{Ca}_x\text{Ba}_y\text{Si}_a\text{Al}_b\text{N}_d\text{O}_e\text{Yb}_z)$, wherein $0 = x = 1$; $0 = y = 1$; $0.001 < z < 0.2$; $0 < a < 2$; $0 < b = 2$; $0 < c = 2$; $0 < d < 7$; $0 < e < 2$ can provide light sources having high luminosity and color-rendering index, especially in conjunction with a light emitting diode as a radiation source. The red to yellow -emitting ytterbium(II)-activated oxonitridosilicate of general formula $(\text{Sr}_{1-x-y-z}\text{Ca}_x\text{Ba}_y\text{Si}_a\text{Al}_b\text{N}_d\text{O}_e\text{Yb}_z)$, wherein $0 = x = 1$; $0 = y = 1$; $0.001 < z < 0.2$; $0 < a = 2$; $0 < b = 2$; $0 < c < 2$; $0 < d < 7$; $0 < e < 2$ is efficiently excitable by primary radiation in the near UV-to-blue range of the electromagnetic spectrum.

IPC 8 full level
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