

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

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Application

EP 05819206 A 20051123

Priority

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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 $(\text{Sr}_{1-x-y-z}\text{Ca}_x\text{Ba}_y\text{Si}_b\text{Al}_c\text{N}_d\text{O}_e\text{Yb}_z)$, 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 $(\text{Sr}_{1-x-y-z}\text{Ca}_x\text{Ba}_y\text{Si}_b\text{Al}_c\text{N}_d\text{O}_e\text{Yb}_z)$, 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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CPC (source: EP US)

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Citation (search report)

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