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(54) **PHOSPHOR COMPOSITION WITH SELF-ADJUSTING CHROMATICITY**

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(52) **U.S. Cl.**

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USPC 313/46, 498-500, 503; 257/98; 252/301.4 R, 301.4 F, 301.4 S, 301.6 S

See application file for complete search history.

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(57) **ABSTRACT**

Disclosed herein are “smart” phosphor compositions capable of regulating the chromaticity of their emission to substantially constant values even with variations in the excitation radiation they receive to induce photoluminescence. One phosphor of the smart composition demonstrates an increase in emission intensity increases as the wavelength of the excitation radiation is increased. The other phosphor shows a decrease in emission intensity with increasing excitation wavelength. Constant chromaticity in this context is defined as a change in CIE x or y coordinate of less than about five percent over a 10 nm range of excitation wavelengths.

15 Claims, 11 Drawing Sheets

