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(54) Title: APPARATUS FOR PERFORMING WAVELENGTH-CONVERSION USING PHOSPHORS WITH LIGHT EMITTING DIODES

(57) Abstract

An apparatus (500), comprises an active region (530), a phosphor layer (550) and a reflective layer (520). The active region is configured to emit light having a first band of wavelengths from a first group of wavelengths. The phosphor layer is disposed between and in contact with the active region and an exterior medium. The phosphor layer is configured to convert the first band of wavelengths of light emitted from the active region to a second band of wavelengths. A center wavelength of the second band of wavelengths is greater than a center wavelength of the first band of wavelengths. The reflective layer is optically coupled to the active region. The active region is disposed between the reflective layer and the phosphor layer. The reflective layer is configured to reflect at least the first band of wavelengths and the second band of wavelengths.

