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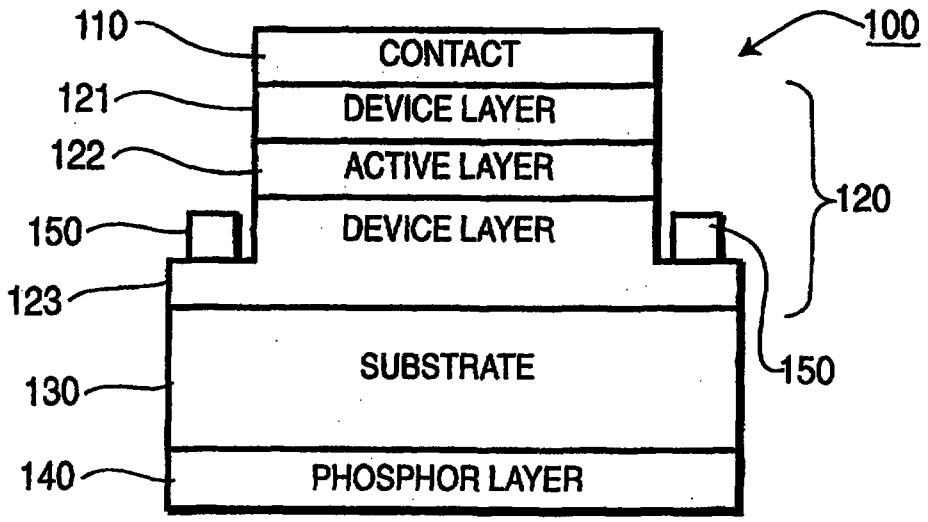
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(54) Title: A METHOD AND APPARATUS FOR PERFORMING WAVELENGTH-CONVERSION USING PHOSPHORS WITH LIGHT EMITTING DIODES



(57) Abstract

An apparatus (100) comprises an active region (120), a phosphor layer (140) and a substrate (130). The active region is configured to emit light having a first band of wavelengths selected from a first group of wavelengths. The phosphor layer has a first refractive index. The phosphor layer includes a plurality of wavelength-converting phosphors. 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 substrate is disposed between and in contact with the active region and the phosphor layer. The substrate has a second refractive index. The first refractive index substantially equals the second refractive index.