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(54) Title: RED-GREEN-BLUE MONOLITHIC INTEGRATED HIGH PURITY MICRO-LIGHT EMITTING DIODE DISPLAY DEVICE

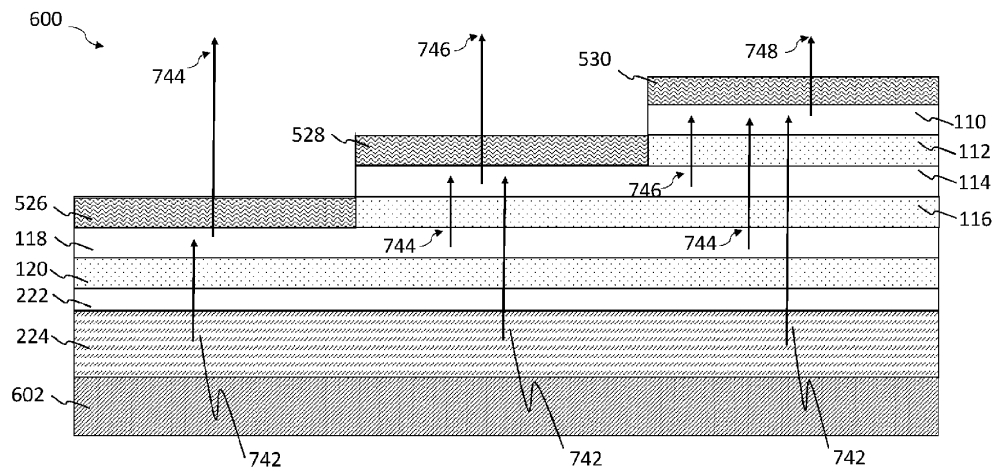


Figure 6

(57) Abstract: A colour conversion resonator system (600) comprising: a first partially reflective region (120) transmitting light (742) of a first wavelength and reflecting light (744) of a second wavelength; a second partially reflective region (116) at least partially transmitting light of the first and second wavelengths and reflecting light (746) of a third wavelength; a third partially reflective region (112) at least partially reflecting light of the third wavelength; a first colour conversion resonator cavity (118) receiving input light with the first wavelength through the first partially reflective region and converting at least some of the light of the first wavelength to light of the second wavelength, wherein the first colour conversion resonator cavity is such that the second wavelength resonates in the first colour conversion resonator cavity and resonant-light with the second wavelength is output through the second partially reflective region; and a second colour conversion resonator cavity (114) receiving input light comprising the second wavelength through the

[Continued on next page]

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second partially reflective region and converting at least some of the second wavelength to light of the third wavelength, wherein the second colour conversion resonator cavity is such that the third wavelength resonates in the second colour conversion resonator cavity and resonant-light with the third wavelength is output through the third partially reflective region, wherein the first and second resonator cavities are arranged to partially overlap to provide a non-overlapping and an overlapping portion thereby defining first and second light emitting surfaces respectively, wherein the first light emitting surface is providing resonant-light of the second wavelength and the second light emitting surface is providing resonant-light of the third wavelength.