ABSTRACT

THERAPEUTIC LIGHT SOURCE AND METHOD

A therapeutic light source, for example for photodynamic therapy (PDT), comprises an air-cooled array of LED's ($L_{x,y}$), the air being vented in the vicinity of the array. The array may be mounted at the distal end of a hand piece suitable for invasive therapy. The LED's may be coupled to a light guide (W, L). The emission spectra of the LED's may be substantially limited to the range 550 to 660 nm, and preferably to one of the ranges 590 to 640 nm, 560 to 644 nm, 650 to 660 nm, and 550 to 570 nm. The therapeutic light source may comprise a non-planar array of light-emitting diodes L conforming with the shape of an external area to be treated or diagnosed. The therapeutic light source may comprise a non-planar array of independently switchable red and blue light-emitting diodes L_R, L_B, mounted on a flexible backing.

[Fig. 6]