

LUMINOUS DEVICE WITH LEDs FOR PHOTODIAGNOSIS AND PHOTOTHERAPY

Description:

Device for photodynamic therapy, phototherapy and photodiagnostic treatments consisting of a luminaire based on LED technology whose geometric configuration, supported by concentration elements (lenses), allows directing the radiation emitted by various arrays of LED diodes (each array radiates in a different wavelength, those best suited to stimulate the photosensitizer) on a point in space (treatment point) with a reduced surface (diameter 0.5 cm), allowing high definition treatments, with irradiance values such that the required treatment times they are minimal.

Keywords:

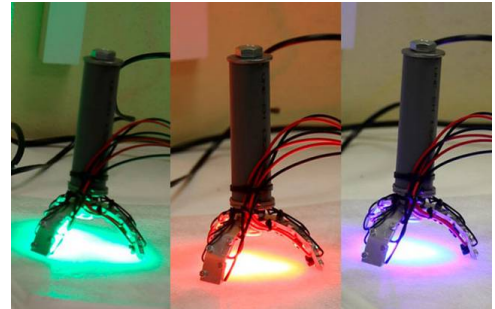
[Photosensitizer](#), [Led Technology](#), [Photodynamic Therapy \(Pdt\)](#), [Led Device](#)

Sectors:

[Electronics](#), [Health](#), [Engineering](#)

Areas:

[Electronics](#), [Health Sciences](#), [Diagnosis](#), [Therapeutics](#), [Instrumentation](#), [New technologies](#)



Advantages:

It allows punctual treatments (circle of 0.5 cm diameter) with different wavelengths that allow to radiate only the required depth, and increase the stimulation effectiveness of the photosensitizer, it is economical, easy to use, with the need for minimal maintenance and value of adequate irradiance to achieve short treatment times. The alternative to the proposed device is the laser, which is expensive, requires constant calibrations and technical support, in addition to presenting red monochromatic radiation for these applications.

Uses and Applications:

Applications in Health sector, in Dermatology area. Phototherapy and photodiagnosis. Punctual treatments of photodynamic therapy of dermatological lesions.

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