Tymchyk G.S., Tereshchenko M.F., Liashenko O.G., Gnateiko O.S. Research on the influence of laser radiation temperature processes in biological tissues

In most countries of the world there is an intensive introduction of laser radiation in biological re-search and in medical practice. Increasing use of light- and laser-based treatment modalities in der-matology instigates the need for objective techniques, which can be used for both planning the treatment and evaluating the results. Effect of low-intensity laser radiation leads to rapid attenuation of acute inflammation, stimulates reparative (regenerative) processes and optimizes the microcircu-lation of tissues. Proved that low-intensity laser radiation has pronounced therapeutic effect. Studied changes in derma temperature of the person depending on derma type, as well as optical and ther-mal parameters of the derma before and after the effect of low-intensity laser radiation. There are the results of mathematical modeling of the effect of low-intensity laser radiation and obtained evi-dence the influence of low-intensity laser radiation on the human epidermis age group 20-25 years, with different derma tones, which obtained by using infrared thermography. There is the depend-ence of the temperature of the derma of two types of influence on time low-intensity laser radiation and environment temperature.
Keywords: low-intensity laser radiation (LILR), regeneration of human skin, optical and thermal properties of biological tissues.

Full article