S3-P.4

Infrared Therapy Device with Amplitude Modulated Broadband Signal

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The role of infrared radiation in stimulating cellular metabolism can be twofold. First, the energy of light quanta is used by the cell instead of the energy of ATP hydrolysis. Secondly, the absorption of light cannot replace such a hydrolysis, but accelerate its flow, and thus the flow of metabolic reactions associated with it. This process is greatly enhanced by the use of terahertz modulation of infrared radiation, which is manifested, for example, in optically stimulated transport of ions through biological membranes.

For therapeutic purposes, the above-described processes in biological tissues have developed a device that generates IR radiation with wavelengths in the range of maximum transparency of biological tissues, modulated by amplitude in the frequency range 10^{11}-10^{12} Hz. Modulation of the radiation produced by the method of interference.