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Biophotons and their effect on electrical activity of membrane via microtubules

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Biophotons are weak electromagnetic waves in the visible and ultraviolet spectra emitted by living organisms, including plants, animals, and humans. (1) These ultra-weak photon emissions (UPE) are typically observed in the range of 200 to 800 nm and are believed to originate from cellular processes involving reactive oxygen species (ROS) and oxidative metabolic reactions. Biophotons play a significant role in cell communication, regulation, and maintaining biological functions. (2) Despite their low intensity, these photons can influence various physiological processes and are linked to the regulation of DNA and intracellular communication. Research on biophotons aims to understand their role in biological systems, their potential applications in medical diagnostics, and their broader implications in the fields of biophysics, bioengineering, and quantum biology. The study of biophotons is expanding, with increasing evidence suggesting their importance in understanding the fundamental mechanisms of life at the quantum level. (3)

Palavras-chave: Biophotons; Biophysics; Cellular communication.

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