

[Lasers Med Sci.](#) 2004;18(4):204-6. Epub 2004 Jan 14.

Mitochondrial membrane potential after low-power laser irradiation.

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We used the lipophilic cationic fluorescent dye 5,5',6,6'-tetrachloro-1,1',3,3'-tetraethyl-benzimidazol-carbocyanine iodide (JC-1) to determine mitochondrial membrane potential ($\Delta\psi$) in Hep-2 cells after irradiation with low-power laser ($\lambda=635$ nm). Through this methodology it was possible to analyze the variation on mitochondrial number and $\Delta\psi$, in cells irradiated for 100, 150 and 200 s with energy density of 100 mJ/cm². Our results show that JC-1 dye allows the identification of populations with different mitochondria morphology as well as the functionality of this organelle in the cells incubated for 1, 6 and 24 h, after irradiation with low-power laser.

PMID: 15042424 [PubMed - indexed for MEDLINE]