

عنوان مقاله:

A Modified Device for Real-Time Observation of Biological Cells Exposed to Microwaves at GSM Frequencies

محل انتشار:

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خلاصه مقاله:

After discovering drawbacks of current similar methods of cell exposure, a new approach towards such setup was taken by examining the possibility of using a grounded Coplanar- Waveguide (C.P.W) with a different substrate to make the nearperfect line matching possible for intended frequencies. A considerable size reduction was also achieved and holes were considered for simultaneous microscopy. Specific Absorption Rate (SAR) and temperature change in the biological sample were then computed and compared with standards to investigate compatibility with bioelectromagnetic requirements. Finally, the radiated fields of such setup were measured and compared with safety standards to ensure operator safety.

کلمات کلیدی:

Real Time Exposure, Applicators for Cell Exposure, Operator Safety, Transmission Line Theory

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