Abstracts

Electromagnetic Modelling of a Parallel-Plate Waveguide Applicator Irradiating an Inhomogeneous Lossy Medium

L. Martens, N. Fache, D. De Zutter and C. De Wagter. "Electromagnetic Modelling of a Parallel-Plate Waveguide Applicator Irradiating an Inhomogeneous Lossy Medium." 1992 MTT-S International Microwave Symposium Digest 92.1 (1992 Vol. I [MWSYM]): 243-246.

An integral method is presented to correctly calculate the mutual coupling between a parallel-plate waveguide applicator and an inhomogeneous lossy structure. The aperture field and hence the electromagnetic absorption in the biological structure is a result of this coupling. The results are presented for the TE/sub 1/-mode excited parallel-plate waveguide applicator. The possibility of changing the electromagnetic absorption in the biological structure by introducing a dielectric material in the waveguide is investigated.

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