

Abstracts

Biological Tissues Characterization at Microwave Frequencies (Short Papers)

B.D. Karolkar, J. Behari and A. Prim. "Biological Tissues Characterization at Microwave Frequencies (Short Papers)." 1985 Transactions on Microwave Theory and Techniques 33.1 (Jan. 1985 [T-MTT]): 64-66.

The present work is concerned with the measurement of dielectric permittivity and conductivity of various high loss tissues from freshly sacrificed animals. The measurement makes use of the 'infinite sample' technique which involves mounting of the sample in a rectangular waveguide system excited in the TE/sub10/ mode at 9.4 GHz. A more complex system consisting of skin-fat-muscle combination is also studied. An evaluation of relaxation times is made in all the cases. It is hoped that these data will be relevant in further quantifying the available results in this frequency range.

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