Abstracts

Comparison of Measured and Simulated Data in an Annular Phased Array Using an Inhomogeneous Phantom (Short Papers)

D.M. Sullivan, D. Buechler and F.A. Gibbs. "Comparison of Measured and Simulated Data in an Annular Phased Array Using an Inhomogeneous Phantom (Short Papers)." 1992 Transactions on Microwave Theory and Techniques 40.3 (Mar. 1992 [T-MTT]): 600-604.

Computer simulation is being used to plan patient treatments for deep regional hyperthermia in the Sigma 60 applicator of the BSD-2000 Hyperthermia System.The method used is the finite-difference time-domain (FDTD) method. Like all simulation methods, confirmation of the accuracy via measured data is important. Until now, most such measurements in the Sigma 60 were done with homogeneous phantoms. A new phantom using both muscle and fat equivalent material has been constructed, presenting a more challenging simulation problem to the FDTD method.The description of the phantom and the results of comparisons between simulated and measured data are presented.

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