

Abstracts

Finite Difference Time Domain Modelling of Hyperthermia Applicators for Cancer Therapy

N.M. Pothecary and C.J. Railton. "Finite Difference Time Domain Modelling of Hyperthermia Applicators for Cancer Therapy." 1993 MTT-S International Microwave Symposium Digest 93.2 (1993 Vol. II [MWSYM]): 1151-1154.

In this contribution an enhanced version of the Finite Difference Time Domain (FDTD) method is used to calculate the field penetration and Specific Absorption Rate (SAR) pattern for a current sheet applicator used in Hyperthermia treatment. The FDTD method uses modified equations to rigorously model three dimensional dielectric boundaries and a non-uniform grid for computational efficiency. Results obtained using the FDTD method are compared with experimental measurements made on phantoms and excellent agreement is obtained.

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