# Abstracts

## Resonance Electromagnetic Absorption by Nonspherical Dielectric Objects

*P.W. Barber. "Resonance Electromagnetic Absorption by Nonspherical Dielectric Objects." 1977 Transactions on Microwave Theory and Techniques 25.5 (May 1977 [T-MTT]): 373-381.*

The extended boundary condition method (EBCM) is used to develop a theoretical solution for the internal fields of isotropic and homogeneous nonspherical dielectric objects. The formulation is particularly effective for resonance-sized bodies. The computational capabilities of the technique are demonstrated by presenting numerical calculations of absorption efficiency versus electrical size (ka) and internal-field distributions at resonance for a number of lossy axisymmetric objects including spheres, spheroids, and a finite cylinder. The numerical limitations are discussed and a method is given which allows extension of the numerical technique to a larger class of problems.

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