Abstracts

Thermic End-Fire Interstitial Applicator for Microwave Hyperthermia

G. Cerri, R. De Leo and V.M. Primiani. "Thermic End-Fire Interstitial Applicator for Microwave Hyperthermia." 1993 Transactions on Microwave Theory and Techniques 41.6 (Jun./Jul. 1993 [T-MTT]): 1135-1142.

This paper presents the analysis of a "thermic end-fire" interstitial applicator for microwave hyperthermia, i.e., an applicator that performs a tip locatized heating of the surrounding lossy medium. The antenna consists of a shorted coaxial cable with an annular radiating aperture at the end. The analytical approach is based on the equivalence principle, which leads to an integral equation for the equivalent magnetic current distribution on the aperture; solution is achieved by the Method of Moments. All theoretical results have been compared to experimental ones showing a good agreement in a wide frequency range,

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