

Abstracts

Focused Heating in Cylindrical Targets-Part II (Short Papers)

J.R. Wait and M. Lumori. "Focused Heating in Cylindrical Targets-Part II (Short Papers)." 1986 Transactions on Microwave Theory and Techniques 34.3 (Mar. 1986 [T-MTT]): 357-359.

We implement the analytical formulation for the local power dissipated in a conductive target of cylindrical form that was described in Part I. The scheme employs a number N of horn apertures arranged around the periphery of the target. We show sample results for the radial and the azimuthal variations of the normalized local power. The cases where the array is focused at both the center of the target and where it is focused at an eccentric point are considered for $N = 4, 8$, and 16 . It is shown that the unwanted secondary "hot spots" can be eliminated if the number N of horn apertures is increased sufficiently. The results are relevant to microwave thermic heating in cancer therapy.

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