# Abstracts

## Absorbed Power Distributions from Coherent Microwave Arrays for Localized Hyperthermia

*J.W. Hand, J.L. Cheetham and A.J. Hind. "Absorbed Power Distributions from Coherent Microwave Arrays for Localized Hyperthermia." 1986 Transactions on Microwave Theory and Techniques 34.5 (May 1986 [T-MTT] (Special Issue on Phased Arrays for Hyperthermia Treatment of Cancer)): 484-489.*

Absurbed power distributions in a homogeneous muscle-like tissue due to a planar coherent array consisting of 16 small direct contact applicators at 434 and 915 MHz are calculated, assuming various relative phases and amplitudes are compared with that of a single aperture source at the same frequency with the same overall dimensions. The array applicator may offer improvement in field size or, when focused, a small improvement in penetration, but in practice the performance is very dependent upon bolus thickness. An additional advantage of the array applicator is the ability to modify absorbed power distributions during use by changing the amplitudes of individual applicators.

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