# Abstracts

## Dielectric-Loaded Lens Applicator for Microwave Hyperthermia

*Y. Nikawa and F. Okada. "Dielectric-Loaded Lens Applicator for Microwave Hyperthermia." 1991 Transactions on Microwave Theory and Techniques 39.7 (Jul. 1991 [T-MTT]): 1173-1178.*

One characteristic desirable in the hyperthermia treatment of cancer is the ability to achieve deep, localized microwave heating of the human body. A newly developed lens applicator has achieved this through the integration of a waveguide partially filled with dielectric. The heating pattern of the applicator can be controlled by varying the size of the dielectric material. Heating experiments on a model simulating human muscle have shown that an applicator with an aperture of 150 X 100 $mm^2$ achieves a maximum heating depth of over 80 mm, results that are well in line with the deep, localized heating required for hyperthermia.

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