

Abstracts

Microwave Heating System Using Lens Applicator for Localized Hyperthermia

Y. Nikawa, Y. Takahashi, H. Watanabe, M. Kikuchi and S. Mori. "Microwave Heating System Using Lens Applicator for Localized Hyperthermia." 1985 MTT-S International Microwave Symposium Digest 85.1 (1985 [MWSYM]): 196-199.

A computer controlled microwave heating system for hyperthermia was developed with direct contact lens applicator to deposit the energy of electromagnetic field deep in human tissues. The results show that with the applicator operate at 2450 MHz, over double of heating depth was realized compared with simple waveguide applicators. And the heating result using the developed system show that the fluctuations of temperature at the heating location in the model of human tissues were maintained within ± 0.3 °C of the set temperature. These results are available for the clinical hyperthermia treatment of cancer.

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