

Abstracts

Multi-Microstrip Applicator for Heating and Temperature Measurement

D. Kobayashi, Y. Nikawa, F. Okada and S. Mori. "Multi-Microstrip Applicator for Heating and Temperature Measurement." 1990 MTT-S International Microwave Symposium Digest 90.1 (1990 Vol. I [MWSYM]): 533-536.

A new applicator using multi-microstrip antenna for hyperthermia is proposed and developed. The applicator has two different functions as a heating applicator and as a coupled microstrip applicator for the temperature estimation inside the body noninvasively. In case of heating, an array applicator can heat deep region with surface cooling. In case of temperature measurement, the applicator detects the change of the transmission coefficient of electric field $0.78 \text{ dB/}^{\circ}\text{C}$. Furthermore the depth of discontinuity (which is assumed to be the position of temperature change position) is assumed by simple geometrical investigation.

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