# Abstracts

## A Microwave System for the Controlled Production of Local Tumor Hyperthermia in Animals

*R.L. Magin. "A Microwave System for the Controlled Production of Local Tumor Hyperthermia in Animals." 1979 Transactions on Microwave Theory and Techniques 27.1 (Jan. 1979 [T-MTT]): 78-83.*

A microwave system was designed and constructed which provides controlled, localized hyperthermia in the tumors of four experimental animals. The components of the system are a 2.45-GHz microwave source, a four-way power-dividing network and reflected power monitor, a temperature-controlled microwave power regulator, and small direct-contact microwave applicators. Adjustment of the temprature control results in elevated temperatures in the centers of tumors which can be maintained to within ± 0.1°C without production of significant whole body hyperthermia.The temperatures at the edges of the locally heated tumors were found to vary within ±1.0°C of the center temperature. The system is currently being used to evaluate the therapeutic potential of sustained Iocalized hyperthermia in small tumors implanted subcutaneously in mice.

❑ Return to main document.