Abstracts

A Multiple-Animal Array for Equal Power Density Microwave Irradiation (Short Papers)

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The introduction of multiple subjects into a microwave field invariably results in perturbations and interference patterns which make it difficult to accurately determine power densities at any specified location. To overcome this problem, investigators have restricted the number of subjects, which is inefficient, or used techniques to illuminate large volumes, which still results in large variations in power density due to curvature of the microwave field. An exposure array has been devised that negates these disadvantages and enables simultaneous irradiations of multiple animals at uniform average power density (/spl plusmn/5 percent). The array consists of microwave transparent cages positioned in accordance with the natural characteristics of the microwave field and separated sufficiently to insure minimum interaction between animals due to microwave reflection. The results of testing the array in an anechoic chamber at a freqnency of 2450 MHz using an isotropic field probe are presented.

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