Abstracts

Microwave Pulse-Induced Acoustic Resonances in Spherical Head Models (Short Papers)

R.G. Olsen and J.C. Lin. "Microwave Pulse-Induced Acoustic Resonances in Spherical Head Models (Short Papers)." 1981 Transactions on Microwave Theory and Techniques 29.10 (Oct. 1981 [T-MTT]): 1114-1117.

Microwave-induced acoustic pressures in the spherical models of human and animal heads are measured using a small hydrophone transducer. The measured acoustic frequencies that correspond to mechanical resonance of the head model agree with those predicted by the thermoelastic theory of interaction. Further, a three-pulse burst applied at the appropriate pulse repetition frequencies could effectively drive the model to respond in such a manner that the microwave-induced pressure amplitude would be increased by threefold or more.

❑ Return to main document.