Abstracts

Comparison of Power Deposition by In-Phase 433 MHz and Phase-Modulated 915 MHz Interstitial Antenna Array Hyperthermia Systems

B.S. Trembly, A.H. Wilson, J.M. Havard, K. Sabatakakis and J.W. Strohbehn. "Comparison of Power Deposition by In-Phase 433 MHz and Phase-Modulated 915 MHz Interstitial Antenna Array Hyperthermia Systems." 1988 Transactions on Microwave Theory and Techniques 36.5 (May 1988 [T-MTT] (Special Issue Commemorating the Centennial of Heinrich Hertz)): 908-916.

The interstitial microwave antenna array hyperthermia (IMAAH) system produces a pattern of specific absorption rate (SAR) that is nonuniform within a 2 cm square array when driven in phase at 915 MHz. Phase modulation makes the time-averaged SAR pattern significantly more uniform in planes perpendicular to the antennas. To drive antennas in phase at 433 MHz similarly improves SAR uniformity when the antennas are of resonance length.

❑ Return to main document.