Abstracts

Biological effects of radiofrequency/microwave radiation

E.R. Adair and R.C. Petersen. "Biological effects of radiofrequency/microwave radiation." 2002 Transactions on Microwave Theory and Techniques 50.3 (Mar. 2002 [T-MTT] (50th Anniversary Issue)): 953-962.

Over the past 50 years, significant advances have been made in the characterization of radiofrequency/microwave (RF/MW) fields (3 kHz-300 GHz) and energy absorption, as well as in the quantification of biological responses of organisms exposed to this kind of electromagnetic energy. The known biological effects and hazards have been demonstrated to be largely thermal in nature. This paper reviews key developments in experimental and theoretical dosimetry, as well as confirmed biological effects that have formed the basis of ever more sophisticated human-exposure standards generated through the IEEE consensus process. It also suggests some potential benefits to mankind of systems based on the thermogenic character of RF/MW energy absorption.

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