Abstracts

Dependence of Electromagnetic Energy Deposition Upon Angle of Incidence for an Inhomogeneous Block Model of Man Under Plane-Wave Irradiation

M.J. Hagmann, I. Chatterjee and O.P. Gandhi. "Dependence of Electromagnetic Energy Deposition Upon Angle of Incidence for an Inhomogeneous Block Model of Man Under Plane-Wave Irradiation." 1981 Transactions on Microwave Theory and Techniques 29.3 (Mar. 1981 [T-MTT]): 252-255.

Whole-body and part-body energy deposition in a realistic inhomogeneous block model of man is presented as a function of angle of incidence for plane-wave irradiation for two cases: E arm-to-arm, with man in free space, H arm-to-arm, with man in free space, and also with man standing on a conducting plane. At the frequencies considered (27.12 and 77 MHz), the variation with angle is smooth and extrema occur at or near angles corresponding to the standard polarizations considered earlier by others. Part-body energy deposition and some of the fine structure in the angular dependence would not be seen with less realistic modes of man.

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