Abstracts

Cylindrical Geometry: A Further Step in Active Microwave Tomography

A. Broquetas, J. Romeu, J.M. Rius, A.R. Elias-Fuste, A. Cardama and L. Jofre. "Cylindrical Geometry: A Further Step in Active Microwave Tomography." 1991 Transactions on Microwave Theory and Techniques 39.5 (May 1991 [T-MTT] (Special Issue on Directions in Design and Applications of Microwave Systems)): 836-844.

A prototype imaging system for active microwave tomography using cylindrical geometry has been developed, making is possible to obtain images of the dielectric properties of biological targets at 2.45 GHz. The system requires no mechanical movements to illuminate the body from multiple directions (views) and measure the scattered fields. In this way a complete data set consisting in 64 views is acquired in 3 s using low-power illumination. The system is described, including images obtained with biological phantoms and actual bodies.

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