

Abstracts

High-Temperature Microwave Characterization of Dielectric Rods

J.C. Araneta, M.E. Brodwin and G.A. Kriegsmann. "High-Temperature Microwave Characterization of Dielectric Rods." 1984 Transactions on Microwave Theory and Techniques 32.10 (Oct. 1984 [T-MTT]): 1328-1335.

A technique for the simultaneous heating and characterization of dielectric rods using a single microwave source is described. The rod is heated in a rectangular cavity excited by an iris. A variational model for the impedances of homogeneous rods used in the characterization procedure is discussed. It is accurate regardless of the diameter of the rod, even at resonance. Experimental results of Beta-Al₂O₃ are presented.

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