

Abstracts

New Results for Coaxial Re-Entrant Cavity with Partially Dielectric Filled Gap

W. Xi, W.R. Tinga, W.A.G. Voss and B.Q. Tian. "New Results for Coaxial Re-Entrant Cavity with Partially Dielectric Filled Gap." 1992 Transactions on Microwave Theory and Techniques 40.4 (Apr. 1992 [T-MTT]): 747-753.

Resonant frequencies, Q-factor and electromagnetic field intensity are presented for a set of varied parameters of a coaxial reentrant cavity with a gap partially filled with a dielectric. The cavity is analyzed using the mode matching technique. The numerical results are found to be in good agreement with experimental data. Based on the numerical results, a scheme for mode identification is proposed and the mode transition is discussed. Furthermore, the equivalent gap capacitances are obtained and compared with the results from an existing formula which has been modified for the dielectric loaded gap,

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