

Concentric Spherical Resonator Eigenfrequencies (Correspondence)

D.L. Rode. "Concentric Spherical Resonator Eigenfrequencies (Correspondence)." 1968 Transactions on Microwave Theory and Techniques 16.6 (Jun. 1968 [T-MTT]): 369-372.

A detailed tabulation of the resonant frequencies for two concentric spheres is presented. These are the roots of the given transcendental equations for TE- and TM-type modes which follow from the boundary conditions at a perfectly conducting surface. All TE-mode frequencies are raised by the presence of the inner sphere while those for TM modes may be raised or lowered, depending upon the ratio of the diameters. Microwave breakdown and heating of a plasma have been enhanced by the use of a TM concentric spherical mode as reported.

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