# Abstracts

## Shift of the Complex Resonance Frequency of a Dielectric-Loaded Cavity Produced by Small Sample Insertion Holes (Short Papers)

*S. Gauthier, L. Marchildon and C. Akyel. "Shift of the Complex Resonance Frequency of a Dielectric-Loaded Cavity Produced by Small Sample Insertion Holes (Short Papers)." 1989 Transactions on Microwave Theory and Techniques 37.4 (Apr. 1989 [T-MTT]): 801-804.*

The presence of small sample insertion holes in a cylindrical cavity produces a shift in the complex resonance frequency of the cavity. A mathematical model is proposed to compute the shift when the cavity oscillates in an axially symmetric TM/sub 0mp/ mode. The treatment applies to samples with arbitrary complex permittivity. The model is compared with other treatments and checked against measured results.

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