# Abstracts

## Frequency Stability of Dielectric Resonator Oscillators (Panel Discussion)

*J.K. Plourde. "Frequency Stability of Dielectric Resonator Oscillators (Panel Discussion)." 1978 MTT-S International Microwave Symposium Digest 78.1 (1978 [MWSYM]): 480-480.*

Dielectric resonators now provide small, high Q, temperature stable, resonant elements for use in microwave oscillators. In recent years, several suitable ceramics have been developed. Compositions in the BaO-TiO/sub 2/, SnO/sub 2/-TiO/sub 2/-ZrO/sub 2/ or SrO-Nb/sub 2/O/sub 5/-TiO/sub 2/ systems offer the best combination of properties for microwave applications at this time. They possess temperature stabilities and Q's comparable to or approaching those of Invar waveguide resonators. Also they provide dielectric constants in the 36 to 40 range which results in approximately 80% of the energy stored within the ceramic. Therefore, dielectric resonators formed from these ceramics approximate lumped resonant elements well.

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