

# Abstracts

## Dielectric materials, devices, and circuits

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*"Dielectric materials, devices, and circuits." 2002 Transactions on Microwave Theory and Techniques 50.3 (Mar. 2002 [T-MTT] (50th Anniversary Issue)): 706-720.*

Dielectric materials are continuing to play a very important role in the microwave communication systems. These materials are key in realization of low-loss temperature-stable resonators and filters for satellite and broadcasting equipment, and in many other microwave devices. High dielectric-constant materials are critical to the miniaturization of wireless systems, both for the terminals and base-stations, as well as for handsets. In this paper, a sequential evolution of the dielectric materials applications in microwave devices will be reviewed. This includes dielectric waveguides, low-loss temperature-stable ceramic materials, dielectric resonators, and filters. The recent advances in the multilayer circuit modules, dielectric antennas, and ferroelectrics are also described.

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