

Abstracts

Microwave Properties and Modeling of High-T_{sub} c/ Superconducting Thin Film Meander Line

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Meander lines have been utilized for the characterization of laser-deposited thin film high-T_{sub} c/ superconducting material. In this paper, we modeled the dispersion characteristics of the meander line and investigated the power dependence of high-T_{sub} c/ materials as a function of frequency and temperature. Measurements showed that magnetic fields as low as 0.1 Oe will affect the superconducting material decreasing the Q of the meander lines. The Q deterioration, is both temperature and frequency dependent and the latter is less pronounced at higher frequencies.

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