Abstracts

Bulk and Deposited Ferrite Isolators for Millimeter Maser Application (Correspondence)

B.J. Peyton, F.R. Arams, W. Wade and T. Collins. "Bulk and Deposited Ferrite Isolators for Millimeter Maser Application (Correspondence)." 1968 Transactions on Microwave Theory and Techniques 16.5 (May 1968 [T-MTT]): 319-320.

This correspondence reports data obtained the saturation magnetization and linewidth, at room and liquid helium temperatures, of ferrites examined as potential isolator materials for the 35.4- to 40-GHz tunable traveling-wave maser previously reported by Arams and Peyton. The Cr/sup 3+/:TiO/sub 2/ energy levels and E-plane isolator geometry dictated a 4 pi M/sub s/ and linewidth exceeding 2800 gauss and 1200 Oe, respectively, at 4.2°K, so that yttrium-iron garnet, used in microwave traveling-wave masers, could not be used as the isolator material.

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