Abstracts

Effect of Rare-Earth Impurities on the Peak Power Capability of Garnet Type Low-Field Microwave Devices

R.G. West, A.C. Blankenship and L.P. Domingues. "Effect of Rare-Earth Impurities on the Peak Power Capability of Garnet Type Low-Field Microwave Devices." 1971 G-MTT International Microwave Symposium Digest of Technical Papers 71.1 (1971 [MWSYM]): 70-73.

From recent work revealing that rare-earth ions of fixed concentration in a garnet ferrimagnet give rise to an additional spin-wave line-width term that is inversely proportional to the saturation magnetization of the host garnet, it is shown that rare-earth impurities found in commercial yttrium end gadolinium oxides used for producing ferrimagnets can contribute to unwanted variations in the peak power handling capacity of low-field microwave devices.

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