

Abstracts

A Quasi-Optical Nulling Method for Material Birefringence Measurements at Near-Millimeter Wavelengths (Short Papers)

G.J. Simonis. "A Quasi-Optical Nulling Method for Material Birefringence Measurements at Near-Millimeter Wavelengths (Short Papers)." 1983 *Transactions on Microwave Theory and Techniques* 31.4 (Apr. 1983 [T-MTT]): 356-358.

A quasi-optical technique for the measurement of birefringence is demonstrated at 245 GHz. The technique is applied to crystal quartz. The measured values are compared with values reported at nearby frequencies. The technique is used to determine the difference between the ordinary and extraordinary real indices of refraction directly, rather than by deducing the difference from separate measurements of the two indices. The technique is based on establishing a transmission null, thus providing appreciable sensitivity and precision for the measurement.

 [Return to main document.](#)