Abstracts

Acoustooptic Interaction of Acoustic Surface Waves with Guided Optical Waves in Planar Tantalum-Pentioxide Waveguides

S. Patela, J. Radojewski and J. Kadziela. "Acoustooptic Interaction of Acoustic Surface Waves with Guided Optical Waves in Planar Tantalum-Pentioxide Waveguides." 1985 MTT-S International Microwave Symposium Digest 85.1 (1985 [MWSYM]): 299-302.

We have investigated acoustooptic propertied of acoustic and planar thin-film Ta/sub 2/O/sub 5/ waveguides with ZnO surface acoustic wave /SAW/ transducer. We have measured velocity and attenuation of SAW and acoustooptic interaction efficiency as a function of Ta/sub 2/O/sub 5/ waveguide thickness. Measured SAW velocity inTa/sub 2/O/sub 5/ has equaled 2250 m/s. Maximum diffraction efficiency per unit acoustic power and unit transducer aperture has equaled 0.61 %/mW·mm.

❑ Return to main document.