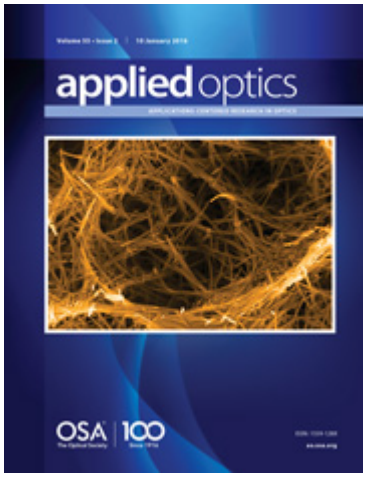

Tunable wavelength terahertz polarization converter based on quartz waveplates

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Abstract

We present the results of calculation and experimental testing of the tunable wavelength terahertz polarization converter represented by a set of plane-parallel birefringent plates with an in-plane birefringence axis. An experimental device has been produced and tested. The calculations show that the effect of interference between the interfaces, including air gaps, may be neglected. The considered device may be used as a simple narrow achromatic waveplate, or a Solc band pass filter for the specified wavelength.