Abstracts

Birefringent Filter for Millimeter Waves (1968 [MWSYM])

B.M. Schiffman and L. Young. "Birefringent Filter for Millimeter Waves (1968 [MWSYM])." 1968 G-MTT International Microwave Symposium Digest and Technical Program 68.1 (1968 [MWSYM]): 309-316.

The theory of optical birefringent filters consisting of several equal-length birefringent plates oriented at various angles to the input polarization vector has been applied to millimeter waves. Each plate of such a filter should be ideally impedance-matched to free space, and the wave to be filtered should be a linearly polarized plane wave. The filter, in effect, rotates the plane of polarization of a band of frequencies that it is desired to pass (stop), and permits the undesired (desired) frequencies to travel on unrotated. Polarization-selective absorbers are thus required. The input and output wave vectors are usually either orthogonal or parallel to each other.

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