

# EIGENPOLARIZATIONS ORTHOGONALITY CONDITIONS OF HOMOGENEOUS ANISOTROPIC MEDIA IN TERMS OF THE POLAR DECOMPOSITION THEOREM

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The eigenpolarizations orthogonality conditions for homogeneous anisotropic media which Mueller matrix describes by the right and left polar forms have been obtained. The features of the relation between parameters of phase and amplitude anisotropy at which the eigenpolarizations are orthogonal have been analyzed. The Mueller matrix of arbitrary homogeneous anisotropic media with orthogonal eigenpolarizations in terms of the polar decomposition theorem was found. The identity of Mueller matrices for the right and left polar forms in the case of orthogonal eigenpolarizations has been shown.

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