

## Inhomogeneous Circularly Polarized Waves in Orthorhombic Crystals

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For time-harmonic homogeneous plane waves, in the context of the linearized elasticity theory, Fedorov & Fedorov introduced a decomposition of the acoustical tensor, valid (apart from a “pathological case”) for all orthorhombic, tetragonal, hexagonal and cubic crystals. In considering this decomposition, they also introduced linearly polarized pseudo-transverse and “pseudo-longitudinal” waves. Here, we consider the propagation of time-harmonic inhomogeneous plane waves in orthorhombic crystals. Using the directional ellipse method introduced by Hayes, we generalize the concept of pseudo-transverse and “pseudo-longitudinal” waves to elliptically polarized inhomogeneous plane waves. We then determine, for orthorhombic crystals, the corresponding possibilities for circularly polarized inhomogeneous waves.

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