

Abstracts

Propagation through a Twisted Medium

G.C. McCormick. "Propagation through a Twisted Medium." 1967 *Transactions on Microwave Theory and Techniques* 15.8 (Aug. 1967 [T-MTT]): 443-450.

An explicit solution is obtained for propagation through a uniform twisted anisotropic medium subject to the conditions that propagation is along the twist axis, and that the structure is fine. The propagation constants are altered and coupling exists between the propagation modes. A parameter is defined which indicates the tendency of the radiation to adhere to the structure of the medium. The effects at boundary discontinuities are discussed, and tapers to an isotropic medium are dealt with. The particular application of the theory to cases of polarization conversion, circular to plane, and plane to plane are discussed.

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