

# Effect of the chirality on the modal propagation of a fiber optic

**L.Cherrad, F. BENABEDELAZIZ, R.Drai**

**Abstract :** We present in this section bianisotropy the effect of chirality on the characteristics of the modes propagating in a symmetric optical fiber constructed from a magnetic field biisotropic chiral material in the heart and the silica substrate. Analytical development of a Maxwell equations led to the dispersion equation whose resolution digitally bisection revealed that the increase of chirality favorite base as that of the propagation constants of the modes and their frequencies reduces thus increasing the power cutoff.

**Keywords :** propagation modes, planar chiral, bianisotropic chirality, planar asymmetrical waveguide