



## Transmission of Light through Birefringent and Optically Active Media: the Poincaré Sphere

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Journal of the Optical Society of America Vol. 44, Issue 8, pp. 634-640 (1954)

• <https://doi.org/10.1364/JOSA.44.000634>



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Abstract

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## Abstract

The parameters necessary to define an elliptically polarized vibration, namely the azimuth, the shape, and the sense of rotation of the ellipse described by the light vector can be represented geometrically by a point on a sphere. The method was suggested by Poincaré in 1892. The theory of the Poincaré sphere is presented in detail, and its application to tracing the passage of light through doubly refracting and optically active media fully illustrated. A simple model, designed on the principles involved, is described: it is suitable for instruction and demonstration.

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