This poster explains and simulates the color appearance of crystal quartz caused by optical activity. When a linearly polarized light is passing through a quartz crystal along its optic axis direction, the polarization plane is rotated. This phenomenon is called optical activity, which is caused by the birefringence between left-handed and right-handed circularly polarized light. When a white light source is used, each spectral component is rotated to different angles, which is called optical rotatory dispersion. Therefore if a linear analyzer is used to observe the transmitted light, a special sequence of colors will appear when the analyzer is rotated. In this presentation we will describe how to calculate the various expected colors of crystal quartz due to optical activity. We measured the rotatory dispersion of crystal quartz in the whole visible region. We calculated the colors of crystal quartz as a function of its thickness and the orientation angle of the analyzer with respect to the polarizer. Our calculated results are confirmed by observing the colors of several quartz crystals of different thicknesses inserted between two polarizers. This research is supported by our benefactor Frank Rodeffer, and by the College of Arts and Sciences Undergraduate Research and Scholarly Activity Grants.