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# Anomalous Dispersion: The Spectrum is Not Necessarily R-O-Y-G-B-I-V

Diane L. Bootz

*Illinois Wesleyan University*

George Kambouroglou

*Illinois Wesleyan University*

Raymond G. Wilson, Faculty Advisor

*Illinois Wesleyan University*

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ANOMALOUS DISPERSION:  
THE SPECTRUM IS NOT NECESSARILY R•O•Y•G•B•I•V

Diane L. Bootz and George Kambouroglou  
Department of Physics, IWU, Raymond G. Wilson\*

This study is an attempt to develop "an innovative approach to anomalous dispersion." Typical dispersion measurements taken in a student optical physics laboratory utilize materials which *display* only "normal" dispersion, a normal spectrum; the material does not absorb in the visible region of the optical spectrum.

This approach allows us to measure dispersion in the visible, *through an absorption region*. From this data we will extract the real part of the refractive index as a function of the wavelength,  $n_r(\lambda)$ . This method utilizes flat plates of dispersive materials rather than prisms. Anomalous dispersion in the visible is a demonstration of the spectral colors being "out of order."