

Abstract Submitted  
for the 4CF12 Meeting of  
The American Physical Society

**Determination of RGB Color Coordinates from Spectroscopic Reflectance Measurements** CESAR RODRIGUEZ, CAYLA NELSON, LINA ABDALLAH, STEFAN ZOLLNER, Department of Physics, New Mexico State University — A numerical value (RGB coordinate) for a certain color, based on a color model, can be determined from a spectroscopic reflectance measurement. To obtain this measurement, an ellipsometer was used with a wavelength ranging from 380 nm to 780 nm to cover the visible light spectrum. The peaks seen in the reflectance versus wavelength graph represent the color of the sample used. Our paper samples were round and coated with a metallic paint. The data was then analyzed using ASTM Standard E308-99 (adopted in 1999) for “computing the colors of objects by using the CIE system.” Once a color is in the CIE color model, it can be transformed into an RGB color model and then compared to the RGB color displayed in many consumer electronics.

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Date submitted: 22 Sep 2012

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