

Abstract Submitted
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Development of a SMOKE Apparatus SUSAN STOFFER, KARINE CHESNEL, LUKE PRITCHETT, KYLE MILLER, Brigham Young University — Surface Magneto-Optic Kerr Effect (aka SMOKE) is a method for measuring the magnetization of thin films and nano-particles. SMOKE utilizes the optical interaction between linearly-polarized light and a magnetized sample. This interaction causes a rotation in the polarization in the light, as described by the Kerr Effect. SMOKE measures this rotation, which leads to calculation of the magnetization of a sample in the presence of an applied magnetic field. My presentation will discuss the SMOKE method and my progress in developing a SMOKE experimental setup in my lab. Various limitations and advantages of SMOKE will be outlined. Preliminary hysteresis loops measured by the SMOKE will be presented.

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