

Abstract Submitted
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Experimental Proof of Malus' Law Using the Photoelectric Current KAREN WILLIAMS, East Central University, MORGAN SENNETT, ECU/OK State University — This paper will show that it is possible to reduce the intensity of the light striking the metal in the photoelectric effect with two polarizers. Reducing the intensity of the light reduces the photoelectric current measured while leaving the stopping potential unchanged. This is directly observed in the plots of photocurrent versus stopping potential for various intensities of light. However, by plotting the photoelectric current versus the original intensity of the light, students can demonstrate Malus' law quite accurately without using a light meter. The students can explore the photoelectric effect and Malus' law with one set of data.

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