

Abstract Submitted
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Light Quanta and Photochemistry M. BAUBLITZ, Northeastern University & Boston University, M. HERSEK, Northeastern University, N. A. GROSS, Northeastern University, A. BANSIL, Northeastern University — For many undergraduate students the photoelectric effect and quantum nature of light seem abstract because of their lack of first-hand experience with these phenomena. This is particularly true for non-science students taking general science courses. At Northeastern University through the Embodied Learning Modules (ELMO) Project, developed with support from NSF and FIPSE, non-science students take part in experiments [1] related to the photoelectric effect that help them understand photochemical processes and the quantum nature of light. Photosensitive materials are produced by depositing thin layers of silver nitrate on paper, and various light sources and light filters are used that permit light from only a specific part of the spectrum to expose the photosensitive material. The dependence of the silver nitrate's photosensitivity on the color of the incident light provides students with an example that can be understood in terms of the quantum nature of light. [1] M. Hersek, N. A. Gross, E. J. Mason, and A. Bansil, *J. College Sci. Teaching* (in press); N. A. Gross, M. Hersek, and A. Bansil, *Am. J. Phys.* **73**, 986 (2005)

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