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**Compton Effect**<sup>1</sup> CHACE COVINGTON, NICHOLAS TOMLINSON, R. SETH SMITH, Francis Marion University — The Compton Effect experiment was performed with the Leybold Didactic Model 554801 X-Ray Apparatus with a Molybdenum anode. The Compton Effect was a critical experiment in the history of physics, because it provided striking evidence for the existence of photons. In the Compton Effect, high energy x-rays are scattered from free electrons, and the corresponding scattering angles can only be explained by treating the x-rays as photons (particles). In this experiment, the 17.4 keV x-rays are produced with a Molybdenum anode and are scattered from a plexiglass target. The results of this experiment and the performance of the x-ray apparatus will be presented.

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