

Abstract Submitted
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High Energy Proton-Impact Single Electron Capture from Helium¹ K. MORRISON, A.L. HARRIS, Henderson State University — In single electron capture, the incident proton collides with a helium atom, captures an electron, and leaves the collision as a neutral hydrogen atom. This process has been studied experimentally and theoretically for decades, but recent advancements in experimental technology now allow for more accurate and detailed measurements. Experimental fully differential cross sections are now available for high projectile energies and large scattering angles, and there is a newly-seen peak at the large scattering angles. We will present results from a fully quantum mechanical 4-body model and compare with experiment.

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