Abstract Submitted
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Varying initial state symmetries in the double photoionization of p^2 electrons from atoms[1] FRANK L. YIP, California State University-Maritime Academy, THOMAS N. RESCIGNO, Lawrence Berkeley National Lab, C. WILLIAM MCCURDY, UC Davis and Lawrence Berkeley National Lab — Recent investigations on double photoionization events from multi-electron targets directly probes the electron correlation between the two photoejected electrons and, thus requires an accurate consideration of their correlated dynamics. Recently, we have treated atomic targets with some accounting of the interactions of these outgoing electrons with those electrons that remain bound to the target. In considering the single-photon double ionization of two p-orbital electrons, for example, distinct final-state symmetries exist, depending on the the possible angular momentum couplings of how these electrons are initially coupled (three possibilities:^3P, ^1D, and ^1S). We consider the full possibilities of removing two valence p electrons from atomic targets and examine the fully-differential cross sections that result.

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Frank Yip
California Maritime Academy

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