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Cross-Section Ratios of Multiple-Photoionized C60 Clusters¹ PAVLE JURANIĆ, Synchrotron Radiation Center, Univ. of Wisconsin-Madison, DRAGAN LUKIĆ², Institute of Physics, Belgrade, Serbia, KATHLEEN BARGER³, Western Washington University, RALF WEHLITZ, Synchrotron Radiation Center, Univ. of Wisconsin-Madison — Relative C_{60}^{2+} / C_{60}^{+} , C_{60}^{3+} / C_{60}^{+} , and C_{60}^{4+} / C_{60}^{+} photoionization cross-sections have been obtained by using synchrotron radiation between 19 and 180 eV. The measurements were carried out at the Synchrotron Radiation Center (SRC) in Stoughton, WI, using an oven to vaporize C_{60} powder and synchrotron light to photoionize the gas. In addition to procuring the abovementioned curves, we have also observed the photoionization-induced fragmentation of C_{60} at higher (> 50 eV) photon energies. The measurements are an improvement to existing data 4 5. The C_{60}^{2+} / C_{60}^{+} relative cross-section curve seems to exhibit an oscillatory behavior, and the possible causes of this behavior will be discussed.

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