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Velocity-Map Imaging Spectroscopy of the Ge⁻, Sn⁻, and Pb⁻ Negative Ions KIATTICHART CHARTKUNCHAND, KYLE CARPENTER, VERNON DAVIS, PAUL NEILL, JEFFREY THOMPSON, AARON COVING-TON, Department of Physics and Nevada Terawatt Facility, University of Nevada, Reno, Reno, NV 89557 — Photoelectrons ejected from collisions between laserproduced photons and fast-moving beams of negative ions have been studied using the technique of Velocity-Map Imaging (VMI) spectroscopy. Digital images produced by the VMI spectrometer have been used to determine photoelectron kinetic energy spectra, as well as photoelectron angular distributions for select isoelectronic Group 14 anions. Analysis of these data are helping to clarify detailed structural properties of these ions with increasing Z and is providing dynamical information on the photon-ion collision systems.

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