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Photodetachment Studies of the Hydrogen Molecular Anion[1]
K.C. CHARTKUNCHAND, Department of Physics and Nevada Terawatt Facility, University of Nevada, Reno, VERNON DAVIS, Office of Proliferation Detection, National Nuclear Security Administration, U.S. DOE, Washington, D.C., JEFFREY THOMPSON, Department of Physics, University of Nevada, Reno, AARON COVINGTON, Department of Physics and Nevada Terawatt Facility, University of Nevada, Reno, DEPARTMENT OF PHYSICS, UNIVERSITY OF NEVADA, RENO COLLABORATION, OFFICE OF PROLIFERATION DETECTION, NATIONAL NUCLEAR SECURITY ADMINISTRATION, U.S. DOE COLLABORATION — Laser Photodetachment Electron Spectroscopy (LPES) has been used to study long-lived beams of the hydrogen molecular anion H_2^-. A photoelectron kinetic energy spectrum was measured at the photon energy of 488 nm using an intercavity crossed laser-ion beams apparatus. The energy scale of this spectrum was calibrated using the photoelectron kinetic energy spectra from the photodetachment of D^- and Cu^-. Preliminary data and results from the analysis of this data will be presented.

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Aaron Covington
Department of Physics, University of Nevada, Reno

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