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Low-energy electron impact excitation of ethanol LEIGH HARGREAVES, Cal State Univ- Fullerton, KENNETH VARELLA, Purdue University, MURTADHA KHAKOO, Cal State Univ- Fullerton, CARL WINSTEAD, VINCE MCKOY, California Institute of Technology — We present differential cross sections measurements for excitation of the four lowest-lying states of ethanol by low energy electrons. The measurements were obtained using an electron energy loss spectrometer with a moveable aperture gas source, and employing a least squares fitting routine to unfold the overlapping contributions of each transition in the measured spectra. Data was taken at scattering angles ranging from 15 – 130 degrees, and incident energies between 9 and 20 eV. The measurements are compared with current theoretical calculations, and previous results for excitation of methanol and water.

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