

Abstract Submitted  
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**Electronic Excitation of low-lying Excited States of Argon and N<sub>2</sub> by Electron Impact**<sup>1</sup> SUBHENDU MONDAL, JULIAN LOWER, STEPHEN BUCKMAN, CAMS, Australian National University, GUSTAVO GARCIA, CSIC, Madrid — We have used a low energy, time-of-flight (ToF) electron spectrometer to measure absolute cross sections for the near-threshold excitation of low-lying levels of N<sub>2</sub> and for the 4s and 4p manifolds of states in argon. The measurements cover an energy range from 12.5 – 15 eV and an angular range from 50-125°. The absolute values of the cross sections are obtained by reference to the absolute elastic scattering cross section. The ToF technique has the advantage that the transmission of the energy analyser is independent of energy and it thus removes one of the major uncertainties involved in such measurements with conventional electrostatic spectrometers.

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