Abstract Submitted
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Electron-impact excitation of atmospheric gases[1] CHARLES P. MALONE, JASON A. YOUNG, PAUL V. JOHNSON, XIANMING LIU, ISIK KANIK, Jet Propulsion Laboratory, BAHAR AJDARI, MURTADHA A. KHAKOO, Cal State Fullerton — Electron energy-loss and impact-induced emission techniques were used to investigate excitation of key features in molecular nitrogen and rare gases. Specifically, line and band emission intensities were investigated as a function of wavelength (at high resolution) and incident electron energy using various monochromator-detector combinations. In addition, electron energy-loss spectroscopy was utilized such that differential cross sections (DCSs) and integral cross sections (ICSs) were obtained. The emission cross sections, DCSs, and ICSs for these atmospheric species will be presented.

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