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**4-P-023 ELECTRON ENERGY LOSS SPECTRA OF ATOMIC
AND MOLECULAR ANTIMONY**

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Both atomic and molecular electronic transitions are observed in electron energy loss spectra of antimony vapour. The vapour was obtained by heating of pure crystalline antimony at approximately 900 K. The electron spectrometer used to perform these experiments has been described recently in the paper dealing with magnesium as a target (D.M.Filipović, B.Predojević, V.Pejčev, D.Šević, B.P.Marinković, Rajesh Srivastava and A.D.Stauffer, *J. Phys. B: At. Mol. Opt. Phys.* **39** (2006) 2583). In this work, the resistively heated oven is redesigned to obtain higher temperatures. Incident electron energies were from 10 to 80 eV. Typical energy and angular resolutions were 60 meV and 2° respectively. Assignment of the atomic energy levels is according to Moore's tables. Additional broad features in the complex energy loss spectra below the first ionization threshold correspond to excited states of Sb₂.