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4-O-009 TRANSITIONS TO AUTOIONIZING STATES IN BISMUTH BY ELECTRON IMPACT

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Transitions to autoionizing states are observed in the electron impact spectra of bismuth vapour. A conventional cross-beam electron spectrometer (ESMA) designed for metal atom targets was used to record electron energy loss spectra in the same manner as it was described recently for magnesium (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). The resistively heated crucible is redesigned to attain higher temperatures. The vapour was obtained by heating of pure crystalline bismuth at approximately 1000 K. Typical energy and angular resolutions were 60 meV and 2° respectively.

