

Problem Sets 9 and 10
(see below for due dates)

Problem Set 9

Background: Chapter 9

Problems: P9.1, P9.3, P9.4, P9.9, P9.10, P9.13, P9.14, P9.15 (see note), P9.16

Due Date: Turn in any five completed problems by Wed, Nov 22. Turn in all remaining problems with problem set 10.

Note: P9.15 – Compare your calculated energies with experimental values for $IP(\text{He}^+)$, $IP(\text{Li}^{2+})$, and $IP(\text{Be}^{3+})$. Cite the sources of your experimental data.

Problem Set 10

Background: Most of Chapter 10 (see note) and Chapter 10 Summary (emailed separately)

Problems: P10.2, P10.3, P10.4, P10.5, P10.6, P10.8, P10.9, P10.11, P10.30, P10.31

Due Date: Tue, Nov 28

Note: I am not interested in covering the construction of spectroscopic terms symbols for atoms. Adjust your reading accordingly. Read 10.1-10.7. Read 10.8 only through the discussion of **multiplicity** on p. 199. Skip 10.9. Read 10.10 (not optional).