

Homework # 6. Chem. 1410, Spring 2001, Assigned Feb 27, Due March 8.

1. Give the following in atomic units:
 - a. The energy of the $1s \rightarrow 2p$ transition of the H atom.
 - b. The energy of the ground state of an electron in a box of width 5 \AA .
 - c. The average of r for the $2s$ orbital of the He^+ atom.
2. Write the Slater determinant for the ground state of the Li atom and expand it out so as to enumerate all the terms.
3. 8-25 from text.
4. 8-29 from text.
5. 8-32 from text.
6. 8-47 from text. (Refer back to 8-46.)