

Electron Configurations and Waves Remedial Assignment (40 pts.)

SELF-REFLECTION

- 1) What were your strengths in this chapter?
 - 2) What skills can you improve?
 - 3) Will you do anything differently in the future when it comes to preparing for tests? If so, explain.
-

ELECTRON CONFIGURATIONS

For questions 4-7...

- 4) Nb ($Z = 41$)
- 5) Cs ($Z = 55$)
- 6) Md ($Z = 101$)
- 7) Mc ($Z = 115$)

...complete the following:

- a) Complete electron configuration, underlining the valence parts
 - b) Condensed electron configuration
 - c) Valence electron configuration
 - d) List of electrons in order by energy level
 - e) Total number of electrons
 - f) Number of valence electrons
 - g) Valence orbital notation (Aufbau “boxes”)
 - h) Dot diagram (Lewis structure)
-

MATH PROBLEMS

Show all work and units. Check sig.figs.

- 8) What is the energy of a wave moving at a frequency of 4.030×10^{17} Hz?
- 9) Calculate the frequency of a wave with wavelength of 6.8×10^{-13} m.
- 10) Calculate the number of moles in 250.00 L of nitrogen gas at STP.
- 11) How many moles of iron are in 9.09×10^{22} atoms of iron?