

HW Set #2

Due 09.09.10 (at the beginning of class)

Chapter 3

10, 14, 18, 22, 26, 32, 36, 40, 44, 46, 52, 56

Other problems.

1. Using the Mulliken scale of electronegativity what is the ratio of the EN of Oxygen to Sodium? What is the ratio of their IE? What is the ratio of their EA? What can you conclude from this?
2. Explain why the second ionization energy (IE_2) of Na is higher than the first IE of Ne.
3. HBr has a bond length of 1.424 Å and a dipole moment of 0.828 D. What are the partial charges on the H and Br ends of the molecules in units of charge of the electron?
4. Based on Lewis dot structures, which has a stronger O-O bond, O₂ or O₃?