

Chapter 5-Key Points

- Lewis dot structures including consideration of formal charge and resonance
- MO theory for homo and heteronuclear diatomics
 - Present diagram (use Fig 5.13 p 164)
 - Bond order
 - Dia or paramagnetic
 - Polarity
 - Possible ion formation
- VSEPR-This topic is actually in Ch 6 in the text, but was included in our discussions of Ch 5
- Below here will not be on the exam. However, be certain to look at the appropriate Ch 5 problems noted below
- Mo Theory for polyatomics
 - Understand symmetry based arguments and use of group orbitals on outlying atoms
 - Understand the MO theory negates the need for hybridization
- Electronegativity
 - Understand how Pauling developed his electronegativity scale
 - Understand the Mulliken-Jaffe approach
 - Be able to explain the principle of electronegativity equalization to predict partial charges
- Suggested problems 5.1,5.2,5.3,5.6,5.8,5.17