

CHAPTER 8 LEARNING OBJECTIVES

1. Predict the type of bonding for a given chemical species.
2. Describe a covalent bond in terms of sharing of electron density between bonded atoms.
3. Explain the differences between single, double, and triple covalent bonds.
4. Write the Lewis structures for molecules and ions containing covalent bonds.
5. Determine the formal charges of atoms in a molecule.
6. Use formal charge to determine the preferred resonance structure.
7. Write resonance structures for molecules or polyatomic ions that are not adequately described by a single Lewis structure.
8. Use bond enthalpies to estimate ΔH for reactions.
9. Relate the electronegativity of an element to its position in the periodic table.
10. Predict the relative polarities of bonds using either the periodic table or electronegativity values.

Review the “In Closing” and “Key Terms” sections of Chapter 8 (pages 372-373).