Organic Chemistry

Chapter 2 Learning Outcomes

Upon successful completion of this chapter, you will be able to:

1. Using valence shell electron pair repulsion (VSEPR) theory, *indicate* the bond angles along with both electron and molecular geometry of organic species.
2. *Examine* organic species to determine whether angle strain is present in any of the bonds.
3. *Apply* the rules for dash-wedge notation by re-drawing organic species, provided only the Lewis structure or chemical formula.
4. *Identify* the various intermolecular interactions between solvent molecules (ion-ion, dipole-dipole, hydrogen bonding, London dispersion forces, etc.) when provided a Lewis structure of the solvent particle.
5. *Examine* organic species to determine how many potential H-bond donors and H-bond acceptors are present.
6. *Compare* a pair or trio of organic molecules and determine which would have the highest boiling point.
7. *Examine* a potential solvent and solute pair, and determine solubility by identifying their intermolecular interactions.
8. *Arrange* an array of different organic molecules, ranking them in order of boiling points.