

Things to brush up on so that Chapter 9 won't hit you like a brick wall...

From Ch 1:

- electronegativity of atoms
- polar bonds
- factors that affect bond strength

From Ch 2:

- meaning of unsaturated and aromatic
- how to recognize the following functional groups: alkyl halide, aryl halide, acid chloride, alkyne, nitrile, alcohol, ether
- intermolecular forces – hydrogen bonding, dipole forces, van der Waals forces

From Ch 3:

- IR bands of alkyl halides

From Ch 4:

- halogenation reaction of alkanes to form alkyl halides
- nomenclature of alkanes, including all of the rules, and names of substituents

From Ch 5:

- NMR chemical shifts of H's next to halogens

From Ch 6:

- rules for determining R and S
- rules for naming compounds with stereocenters

From Ch 7:

- rate laws, order of reactions
- association, dissociation, and displacement reactions
- what a nucleophile and electrophile are
- factors which affect the strength of acids
- using pK_a's to determine the equilibrium of a reaction

From Ch 8:

- kinetics – what a 1st and 2nd order reaction are
- what association, dissociation, and displacement reactions are
- what electrophiles and nucleophiles are, and what makes them strong and weak

From Ch 9:

- substitution, elimination, and addition reactions
- mechanism of halogenation reaction (radical reaction)
- how carbocations are stabilized
- how radicals are stabilized
- stereochemistry of reactions – inversion and racemization