

Lesson 42: Organic II

text: 940-949

what to know:

-structures, nomenclature and properties of halides, alcohols, ethers, aldehydes, ketones, acids, esters, amines and amides, §24-2

questions:

1. Describe two methods for making ethanol.
2. Write structural formulas for:
 - a. 3-pentanol
 - b. a 2 carbon aldehyde
 - c. a 3 carbon amine
 - d. acetic acid
 - e. acetone
 - f. an ester made from propanoic acid and ethanol
 - g. a 3 carbon ether
 - h. a soap with 16 carbon atoms
 - i. an amide
 - j. an amino acid
3. What products are made when:
 - a. ethanol is oxidized (dehydrogenated)?
 - b. a ketone is reduced?
 - c. an ester is hydrolyzed?
 - d. an aldehyde is oxidized?
 - e. acetic acid is treated with sodium hydroxide?
 - f. ethanol is dehydrated?
4. How does a soap or detergent work?
5. What is a fat?
6. How is 1) vinyl chloride and 2) ethylene glycol made from petroleum and what is it used for?
7. Distinguish between primary, secondary and tertiary alcohols.
8. What is the commercial synthesis of acetic acid?

Lesson 43: Organic III

text: 949-954

what to know:

-insecticides, herbicides, analgesics, antibacterial agents, steroids, §24-3

questions:

1. Distinguish between A first, second and third generation@ insecticides.
2. Which common insecticide is an organophosphate?
3. Describe the chemical structure (functional groups) of the 1) herbicide, atrazine and 2) penicillin G.
4. Note the chemical similarity of morphine, codeine and heroin.
5. Name some important cholesterol derivatives