Alcohols and Ethers, Problem Set #3

Due in lecture on 2/26/2003

Only the additional problems need to be turned in.

- **A** Read Chapter 17: sections 17.1-17.3, 17.7-17.8, 17.10-17.12.
- ❖ Read Chapter 18: sections 18.1-18.3, 18.6-18.9, 18.11.

Excercises:

- **♦** McMurry 5th Ed Problems: 17.30, 17.34, 17.35, 17.36, 17.38, 17.41, 18.27, 18.28, 18.31, 18.33, 18.34, 18.36, 18.40, 18.42, 18.43, 18.56
- ❖ Additions Problems:
- (1). Which of the alcohols below is more acidic? Explain why.

$$CH_3$$
 CF_3 CF_3 CH_3 CH_3 CF_3

(2) Draw the product from the equation below and the mechanism of its formation.

SO₃H KOH, Heat
$$C_6H_6O$$

(3) Draw a mechanism for the following transformation.

(4) Draw the product from the equation below and the mechanism of its formation. Consider the stereochemistry.

$$HO$$
, H $SOCl_2$ $C_7H_{15}CI + SO_2 + HCI$

(5) Draw the product from the equation below.

(6) Draw the product from the equation below and the mechanism of its formation.

$$OH + S + CI + Et_3N \longrightarrow product$$

(7) Draw the *two* products from the equation below and their mechanism of formation.

(8) Draw the mechanism for the following transformation.

(9) Draw the product from the equation below and the mechanism of its formation.

(10) Draw the product from the equation below and the mechanism of its formation.

(11) Draw the product from the equation below and the mechanism of its formation.

(12) Draw the product from the equation below.

(13) Draw the product from the equation below.

(14) What is "A" and "B" below?

$$\begin{array}{c|cccc}
OH & & \\
\hline
(1) \text{ NaH} & & 250^{\circ}\text{C} \\
\hline
(2) & & \text{Br}
\end{array}$$