Chemistry 2301

At-Home Exercise: Mechanism Practice Problems

For each reaction shown below, draw a mechanism that explains how each product is generated from the starting material. In your answer, make sure that you:

- Draw each step of the mechanism separately;
- Use "electron pushing" to show where the electrons in each step go;
- Use only the molecules that you are given; do not invoke reactants or solvents that aren't in the problem.

$$H_3C$$
 CH_3
 H_3C
 CH_3
 CH_3
 CH_3
 CH_3
 CH_3

OH
$$+$$
 Br $+$ OCH₃ $\xrightarrow{Na_2CO_3}$ $\xrightarrow{(pK_a \text{ of } HCO_3 = 10.3)}$ $+$ OCH₃ $\xrightarrow{(pK_a = 9.5)}$