

XI. Post-lab Exercises

- a. Explain the effect of adding too much water or too little water when carrying out this experiment. (Hint: consider the following equilibrium which occurs in the reaction flask: $\text{ROH} + \text{H}_2\text{SO}_4 \rightleftharpoons \text{ROSO}_3\text{H} + \text{H}_2\text{O}$, think about the effect of concentration on reaction rate). (10 points)

- b. Write a mechanism (arrow formalism) leading to the major product(s) for the following reaction. (Hint: How will the mechanism change compared with lab given the change in substrate structure.) (10 points)

