**Procedure**

**Short story: This is a rate of reactivity experiment involving 7 test tubes under the light**

1. Obtain 4 disposable test tubes and a beakers big enough to hold all of the tubes.
2. Label the 4 tubes with the number that corresponds to the compound that will be added.
3. Add 2 mL of DCM to each of the tubes.
4. Add 0.5 mL of each sustrate to it's corresponding numbered tube.
5. Add 0.5 mL of the bromine solution to each tube, stopper each test tube and place the beaker under the lamp.
6. Monitor the tubes and write down which tubes become colorless and in what order.
7. Once the order has been determined for each set of tubes, all of the tubes can be poured into an Erlenmeyer flask.
8. Quench any residual bromine by added a few (3-4) drops of cyclohexene to the flask or enough such that the solution is colorless.
9. Dispose of the solution in the halogenated waste container.

Be aware that ethyl benzene and toluene both react very fast and may change color before you even have a chance to finish with the other samples or can wrap with aluminum foil. For each set of tubes, save the addition of bromine to these two compounds for last so that you can focus on determining which reacts faster. It generally works best for one student to time the reaction while another student adds the bromine to the ethyl benzene and toluene reactions.

* It generally works best for one student to time the reaction while another student adds the bromine to the ethyl benzene and toluene reactions.
* The test tubes should be rinsed with DCM before disposing in the glass waste containers.
* The bromine solution is not always immediately miscible and stay as two layers until mixed. If students bubble air from the bottom using a pipette, the solutions will mix and timing can begin.