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ch216sp12syllabus: Lab Practical

A make-up practical will only be given to students with a demonstrated excuse. Please contact Dr. Shultz immediately if you expect to be absent. Students who miss the lab practical are responsible to clean and check out their lab drawer as arranged with their GSI.

You will have 120 minutes to complete the practical.

You will receive minimal instruction on the day of the practical. No texts are allowed. You may use your laboratory notebook, which will contain previous observations regarding crystallization and TLC. No electronic devices may be used except for a standard (non-programmable, non-graphing) calculator.

There will be no talking with your classmates. Talking will result in a zero for the entire lab session!

You will be given 1.0 g of an unknown solid with which you will 1) demonstrate your ability to purify the solid by recrystallization from a solvent or solvent mixture, which you will select, and 2) demonstrate your ability to identify appropriate TLC solvents and provide a resolved TLC plate. You will also be provided with IR and NMR spectra corresponding to your unknown solid, which you must analyze and use to determine the identity of the unknown.

Your grade will be based on your laboratory technique, the quality and yield of crystals produced from recrystallization, resolution of the TLC plate, and your ability to identify the unknown based on the IR and NMR spectra provided.

Your TA will evaluate your technique as part of your lab practical score. Your technique will be evaluated during the entire lab period. To give you an idea of how your performance is evaluated, below are examples of questions your GSI will be asking themselves as you work in the lab:

1. Are all safety rules and regulations followed?
 2. Are all flasks clamped during filtration to prevent tipping or spillage?
 3. Are goggles and gloves worn at all times?
 4. Is all the required glassware present in the student's drawer?
 5. Is the technique executed correctly? (i.e. using the correct funnel and filter paper for vacuum filtration)
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