CHEM 238 LAB PRACTICAL--Wednesday March 12.

For this practical 'exam' you will be given an impure sample to be purified either by acid/base extraction or recrystallization. You are to carry out this task by yourself without the aid of other students or your text or lab notebooks.

When you arrive in lab you will be given your impure sample and an instruction sheet of paper to inform you if it is to be purified by recrystallziation or acid/base extraction

On the instruction sheet for the acid/base extraction purification you will be told the identity of the compound you want to purify, the approximate weight of the sample and what solvent its dissolved in (the sample and impurity will already be pre-dissolved in an appropriate solvent to do the extraction). You will also be told that the impurity will be either an organic acid or base (amine) and how much 1M NaOH or 1 M HCl you should use for the extraction step. You do not have to isolate the acid or base.

Your ultimate goal will be to separate the neutral compounds from the acid or base impurity and determine the % recovery and melting point.

For the crystallization purification you will be given the name and structure of the impure material and the approximate weight of the sample. You will also be given 3 suggestions as to which solvent could be used for crystallization. A pure sample of your compound will be available to test solubility behavior in the 3 suggested solvents. Your goal will be to purify your sample and determine the % recovery and melting point.

You may **not** use your textbook, handbooks, or any other written material while completing this exercise. You may not talk to other students during this exercise and you should refrain from looking at the set-ups used by other students.

This exam will be worth 40 points and will be based on the % recovery of the purified material and the purity. There will be a subjective portion of the grade that will entail whether or not you talk to other students and how safely you work etc.

You may have a second sample, but it will cost you 5 points. If you take a third sample, this will cost you an additional 5 points.