

## Module 2: Synthesis of Coordination Compounds and Kinetics

### Experiments Schedule.

Date	MW TTh	Activity
Oct 3,4	day1	Synthesis of $[Co(NH_3)_4(CO_3)]NO_3$
Oct 10,11	day2	Synthesis of $[Co(NH_3)_5Cl]Cl_2$
Oct 15,16	day3	Lambert-Beer study
Oct 17,18	day4	Kinetics Measurements at 60 C
Oct 22,23	day5	Kinetics Measurements at 40 C
Oct 24,25	day6	Kinetics Measurements at 70 C
Oct 29,30	day7	Report Interview

Students should come to the laboratory prepared and on-time. This means that you should come to class having reviewed the relevant lecture notes, read the procedure for the relevant experiments and completed the pre-lab assignment.

### Quizzes

There will be a quiz at the beginning of each lab period which will cover material about the labs you will be completing that day. These quizzes are designed for all of you to do well on, so long as you have read through the lab manual!

### Pre-Labs

These are designed to prepare you for the labs and to give you a chance to look up any extra details that might be helpful for the experiments. All pre-lab assignments should be typed in a legible, standard font (Arial, Times New Roman, etc).

All pre-labs will also have an extra credit question, which is completely optional, and will not be accepted if it is longer than one page typed (though most extra credit questions should only take a paragraph or two). These extra points will count towards your overall grade in the course in the way that helps you most. Partial credit will be given liberally on these assignments, as they are much more difficult than the required assignments for the experiments.

### Notebook Etiquette

In addition to your typed pre-labs, you will be expected to keep a notebook that has records of your data from the actual labs. Before coming to lab, you will need to write out the samples/reagents you are using and any relevant safety data about these compounds as well as a written procedure of your experiment for the day. The carbon copy of this page must be handed in with your pre-lab. During the lab section, you will be expected to take notes on all of the additions and significant results and observations that occur while working on the lab. The carbon-copies of these pages will be collected at the end of every lab day.

## Technique

Your technique grade will reflect your ability to perform the required reactions and instrumentation in a safe and appropriate manner. This does NOT mean that asking questions will make your grade go down!! It will reflect your ability to know (roughly) what to do, and mostly, it will reflect your ability to analyze your results effectively. Your results will not be perfect!!!! A person with a high technique grade will be able to explain the experiment and reactions as dictated by the pre-labs and lab manual, and will be able to critically discuss any unexpected results and sources of error.

### Grading Scheme.

Date	Points
Laboratory Quizzes	10
Pre-Lab Preparation	10
The Factual Record (notebook, data, plots)	15
Technique,Safety	10
Waste inventory	5
Written Report + Report Interview	50
	100 Total

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