Inorganic Chemistry Laboratory

Chemistry 236

Section: D100

Term: 2006 Fall

Instructor: Dr. L. Hanlan. Office: C8068. Phone: 604-291-4409.

Discussion Topics: General Course Description:

An introduction to the synthetic and spectroscopic techniques used in the preparation and characterization of both main group and transition metal compounds.Writing Intensive Course: An emphasis will be placed on writing in chemistry with a focus on keeping a laboratory notebook and writing formal laboratory reports.

0 lecture hours/week; 1 tutorial hour/week; 4 lab hours/week

Topics:

Main Group Chemistry

Introduction to Infrared Spectroscopy in Inorganic Chemistry

The Oxidation States of Tin: Preparation of Tin (IV) and Tin (II) Iodide

Inorganic Polymers

Transition Metal Chemistry

Reactions of Transition Metal Ions

Synthesis and Thermal Decomposition of [(C6H5)3P]2CuBH4

Werner Complexes: Preparation and Determination of Structural Formula

Synthesis and Isomerization of Nitro- and [Nitritopentamminecobalt(III)]chloride.

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Note: Other labs may be introduced.

Grading: 75% Lab Results, Reports and Technique.

25% Written Quizzes and Lab Exam.

Required Texts: A Laboratory Manual will be distributed at the first lab lecture in Week 1.

Recommended Texts: None

Materials/Supplies: Students must purchase Safety Glasses. Lab coats are recommended.

Prerequisite/Corequisite: Prerequisite: CHEM 122(103) and 126(118).

Corequisite: Chem 230.

Notes: Attendance at weekly tutorials is mandatory.