

Chem 362: Inorganic Chemistry Laboratory

Course description: Emphasizes synthesis and characterization of inorganic compounds.

Course Goals

Develop the ability to apply the concepts of coordination chemistry and functional group transformation to inorganic synthesis

Develop the ability to perform multistep synthetic experiments

Develop the ability to perform purification procedures

Develop the ability to handle air sensitive compounds

Develop the ability to apply concepts of symmetry to structural characterization

Develop the ability to apply redox chemistry in synthesis

Develop an understanding of the reactivity of the metal-carbon bond including its role in synthesis and catalysis

Develop the ability to use analytical and spectroscopic data to assign molecular structure in solution and the solid state

Develop ability to apply the concept of magnetism in characterization

Apply physical and spectroscopic methods to the characterization of mixture of compounds

Program Goals

Develop the ability to design, conduct and observe chemical experiments and to record and critically analyze data from chemical experiments.

Develop the ability to represent chemical information.

Develop the ability to work competently, independently and safely in a laboratory environment.

Develop competence in problem solving.

Develop the ability to use the chemical literature in a critical manner.

Develop the ability to disseminate scientific information orally and in writing.

Develop the ability to engage in scientific discussions.

Develop the ability to apply academic and scientific integrity to scholarly and professional endeavors.