General Chemistry Discovery Laboratory

2009 Version

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Laboratory Schedule
Wednesdays 1:30 – 4:30 PM
Nobel 306

Laboratory Schedule

Date	Investigation	Page
September 16	What is Heat? Endothermic and Exothermic Reactions	EE-1
September 23	An Introduction to Molecular Modeling and Visualization: From Water to ACE Inhibitors	ACE-1
September 30	Synthesis of Alum from Aluminum	Synth612
October 7	Nobel Conference 45: H_20, Uncertain Resource	--------
October 14	Seeing the Light : Spectroscopic Determination of Concentration	SL-1
October 21	Graphical Analysis and the Gas Laws I. Graphical Analysis II. Boyle's Law	GL-1
October 28	Pressure-Temperature Relationship in Gas and Determination of the Gas Constant	PT-1
November 4	Water Quality (Field test kits, colorimetry)	WQ-1
November 11	Gas Chromatography – Mass Spectrometry (Hazardous Waste)	Handout
November 18	Analysis of Saint Peter's Infamous Tap Water	Ca-1
November 25	No Laboratory – Thanksgiving Week	--------
December 2	Titration of a Diprotic Acid	DA-1
December 9	Rate Law Determination of the Crystal Violet Reaction	CV-1

Discovery laboratory section focus:

The discovery laboratory section is designed to provide an alternative approach to Principles of Chemistry Laboratory with added emphasis on more self-directed laboratory investigation. The work level is designed to be comparable to that of the other sections, but will flow at a different pace with some investigations occupying multiple weeks. At other times, identical laboratories will be carried out with the other sections of the laboratory. Computer based data acquisition equipment will be used in this section and molecular modeling investigations will be carried out taking advantage of the new 'supercomputer' in the chemistry department. Relax, explore, and have fun!