

CHEM 3870 Instrumental Analysis Laboratory

Course Description:

Some illustrative experiments related to the lectures of CHEM3410 enable students to have some experience in operating the modern analytical instruments for chemical analyses. This course will also strength the students' skills in carrying out real-sample analyses.

Co-requisite:

CHEM3410

List of Experiments (for reference only):

1. Fluorescence: Analysis of Riboflavin (Vitamin B₂) in Vitamin Tablet using Standard Addition Method
2. Ion Chromatography: Determination of Anions in Soft Drink
3. High Performance Liquid Chromatography: Determination of Aspirin, Acetaminophen and Caffeine in Commercial Drugs
4. Inductively Coupled Plasma-Atomic Emission Spectrometry: Determination of Metals in Milk
5. Atomic Absorption Spectrometry: Determination of Copper in Steel
6. Gas Chromatography: Determination of Methyl Salicylate and Menthol in Pharmaceutical Ointment
7. Gas Chromatography-Mass Spectrometry: Separation, Identification and Quantification of Fatty Acids in Cooking Oil
8. X-Ray Fluorescence: Determination of Iron in Water Sample by Coprecipitation