

## **Inorganic Chemistry Laboratory**

Inorganic chemistry laboratory exposes students to perform various experiments related to the synthesis and characterization of inorganic complexes, Volumetric and gravimetric analysis of inorganic compound. It is also aimed to provide the students a degree of competence in the laboratory skills required for accurate and precise chemical analysis. In addition to this, the students will demonstrate proficiency in the theory underlying analytical techniques and to apply this theory to obtain reliable analytical results on the synthesis of inorganic complexes.

Experiments performed by students during M. Sc course are:

- Synthesis of coordination compounds
- Determination trace metal ions
- Volumetric and gravimetric analysis of inorganic compounds
- Separation of metal ions by chromatography (Column, TLC, Paper)
- Conversion of Coordination compounds (Cis-trans, Ligand Substitution etc)
- Analysis of water and soil
- Drawing of different chemical structures by using Chemdraw software,

The key instruments in the laboratory are:

UV spectrophotometer

Boiling Point apparatus

Flame Photometer

FT-IR

Potentiometer

pH meter

Conductometer

Water samples

Water quality: pH, conductivity, alkalinity, TDS, hardness, salinity, Dissolved oxygen