King Khalid University

College of Science

Department of Chemistry

جامعة الملك خالد

KING KHALID UNIVERSITY

Laboratories of the Chemistry Department

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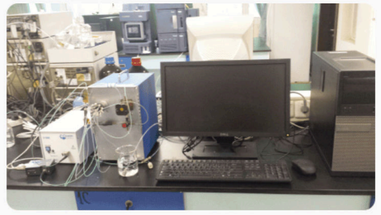
About Labs

About Labs

Chemistry labs within a university's chemistry department serve as vital spaces for hands-on experimentation and learning. These labs typically provide students with the opportunity to apply theoretical knowledge gained in lectures to practical scenarios.

Research Labs



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Chromatography Lab

Our laboratory provides analytical services on a wide range of advanced analytical instruments. This laboratory includes facilities for chromatography/mass spectroscopy. We enable faculty staff and students to utilize liquid and gas chromatography instruments connected to a range of selective and universal detectors. Researchers in the chromatography facility develop and validate precise, accurate and robust chromatographic methods that able to separate and detect a wide range of organic compounds for both qualitative and quantitative analysis. Typical analyses in this laboratory include the separation and determination of organic compounds using high resolution and sensitive ultra-performance liquid chromatography tandem mass spectrometry UPLC-MS/MS, determination of volatile and semi-volatile organic compounds using gas chromatographic techniques, among others.

Chromatography Lab

Facilities

Specifications

- Acquity UHPLC H-Class Core System
- Xevo TQD Waters Acquity Tandem Mass Spectrometer
- Acquity UPLC Photodiode Array Detector
- MassLynx 4.1 M58 & XP Xevo TQ MS Application Manager Software

Various Usages

- Analysis of biological samples.
- Analysis of environmental samples.
- Analysis of food samples.
- Analysis of pharmaceutical samples.
- Routine quantitative analysis.

Chromatography Lab

Facilities

Specifications

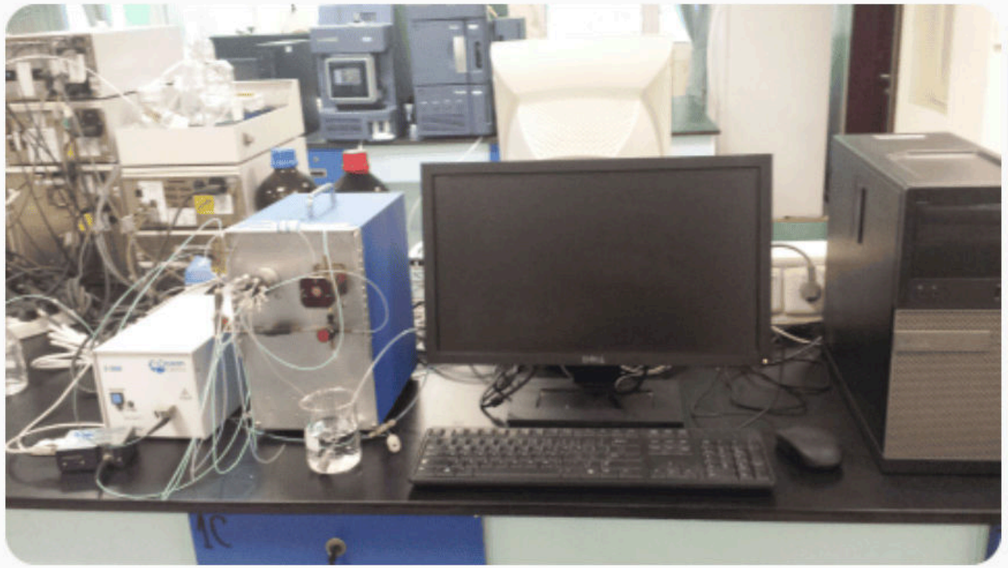
- Shimadzu HPLC System LC-10AT
- Shimadzu UV-VIS Detector SPD 10A
- Shimadzu Autosampler SIL-10A
- Shimadzu System Controller SCL-10A
- Shimadzu Class-VP LC workstation Software

Various Usages

- Analysis of biological samples.
- Analysis of environmental samples.
- Analysis of food samples.
- Analysis of pharmaceutical samples.
- Routine quantitative analysis.

Chromatography Lab

Facilities



Specifications

- FIAlab Instruments
- Ocean Optics D-2000 UV Light Source
- FIAlab Workstation Software

Various Usages

- Analysis of biological samples.
- Analysis of environmental samples.
- Analysis of food samples.
- Analysis of pharmaceutical samples.
- Routine quantitative analysis.

Chromatography Lab

Facilities

Specifications

- Varian Saturn 2100T Gas Chromatograph
- Saturn 2100 Mass Spectrometer
- Varian Turbomolecular Pump m/n SATPRO1
- Varian Autosampler CP-8400
- Varian MS Workstation 6.2 Software

Various Usages

- Analysis of environmental samples.
- Analysis of petroleum samples.
- Separation and identification of volatile and semi-volatile organic compounds.

Chromatography Lab

Facilities

Specifications

- Shimadzu GC System GC-17A
- Shimadzu FID Detector
- GC Workstation CLASS-GC10 Software

Various Usages

- Analysis of environmental samples.
- Analysis of petroleum samples.
- Separation and identification of volatile and semi-volatile organic compounds.

Chromatography Lab

Facilities

Specifications

- Dionex ASE 350 Accelerated Solvent Extractor
- Control panel contains LCD keypad
- Stainless steel cells in various sizes
- Collection vessels (250 mL and 60 mL)
- Three 2 liter reservoirs
- Accommodates 1, 5, 10, 22, 34, 66 and 100 mL cell size

Various Usages

- Extraction of mildly acidic or basic samples.
- Extraction of organic compounds from a variety of solid and semisolid samples using common solvents at elevated temperatures and pressures in very short periods of time.

02

Educational Labs