

King Khalid University



College of Science
Department of Chemistry



Laboratories of the Chemistry Department



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An abstract graphic design featuring a central orange circle with the number '01' in white. This circle is connected by a thick orange line to a larger black circle on the left. The background is light blue with various organic, flowing shapes in shades of teal, white, and orange. There are several smaller circles and teardrop shapes scattered around the main elements.

01

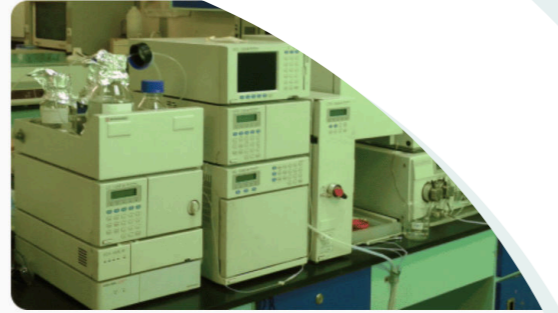
About Labs

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



02

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

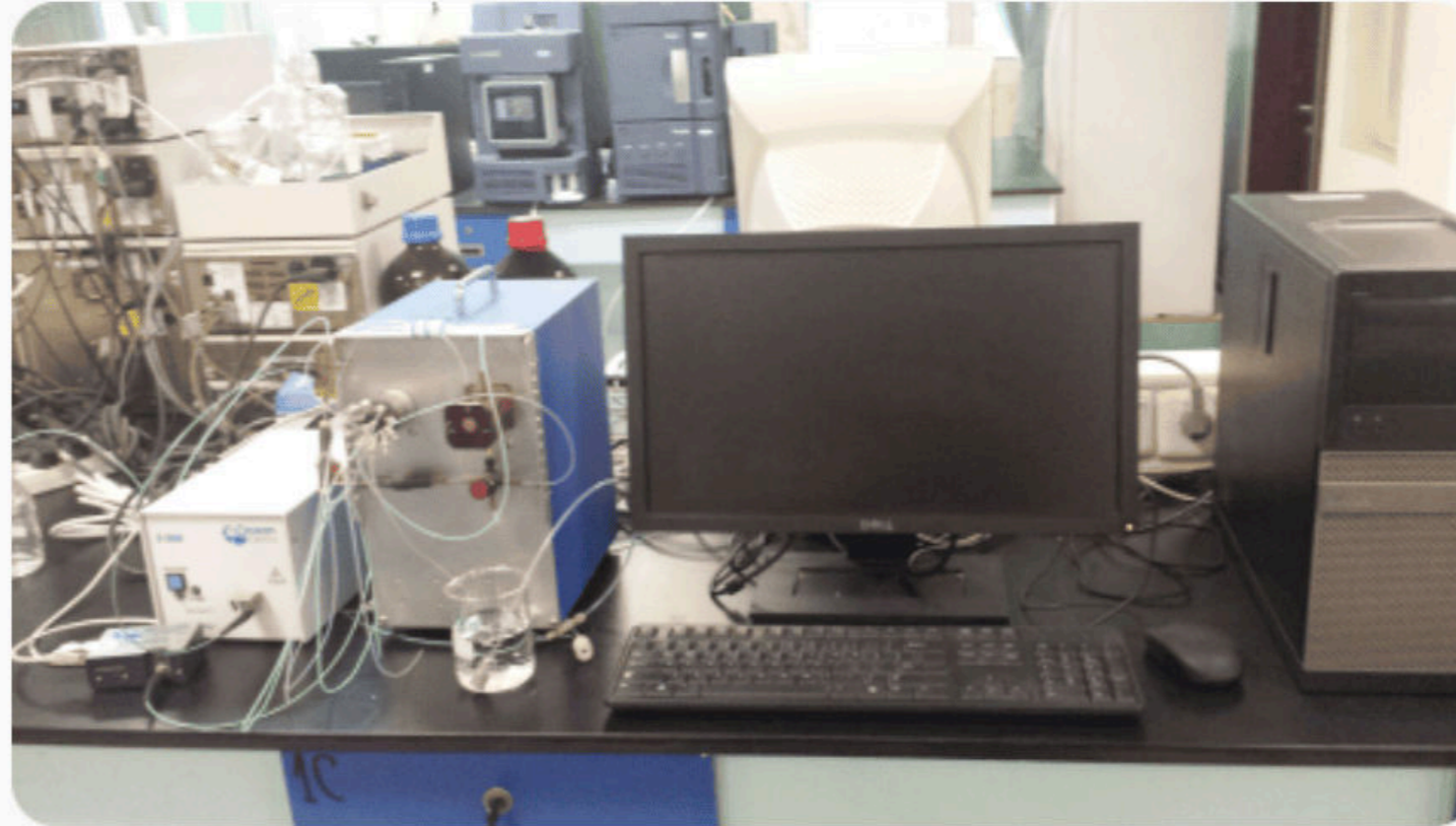
- Shimadzu HPLC System LC-10AT
- Shimadzu UV-VIS Detector SPD 10A
- Shimadzu Autosampler SIL-10A
- Shimadzu System Controller SCL-10A
- Shimadzu Class-VP LC workstation Software

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

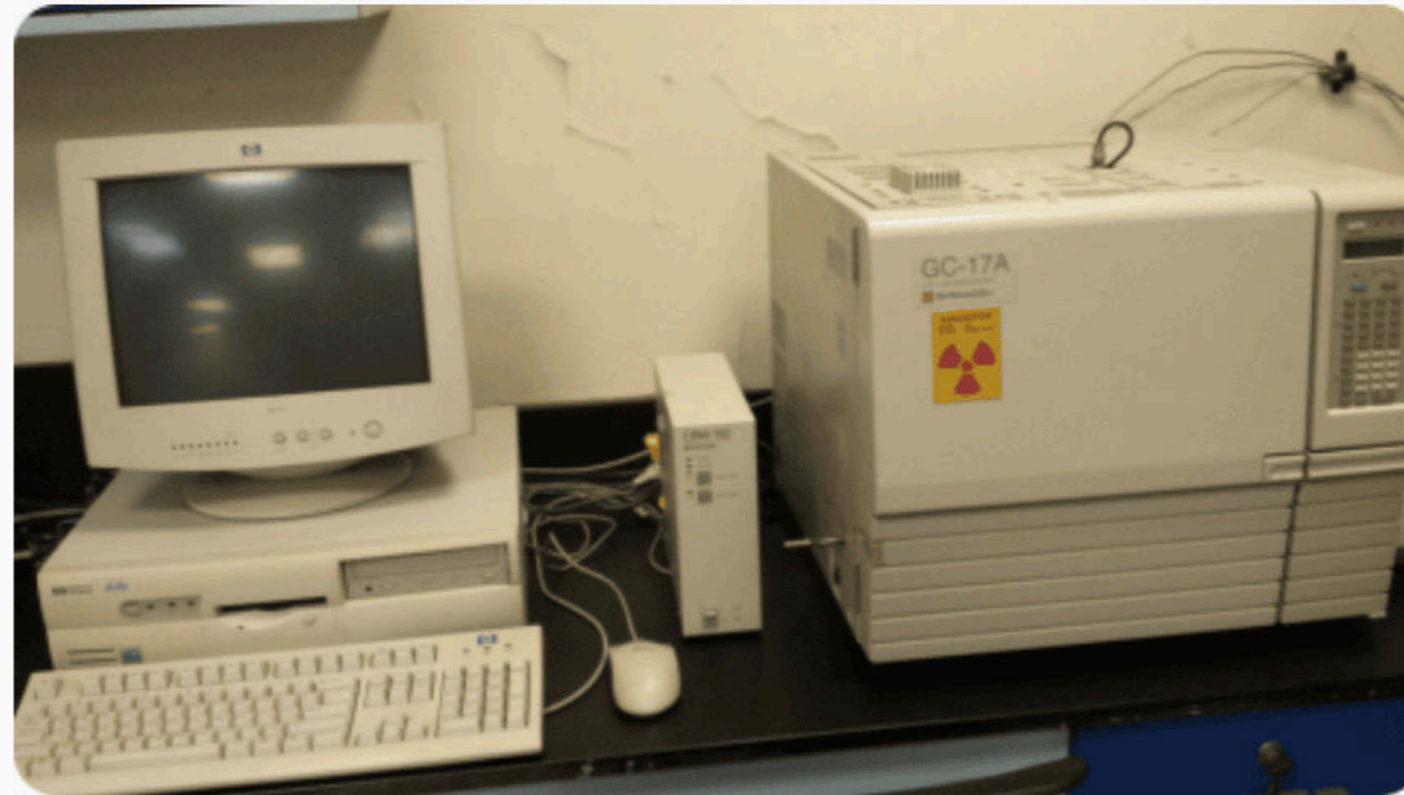
- Varian Saturn 2100T Gas Chromatograph
- Saturn 2100 Mass Spectrometer
- Varian Turbomolecular Pump m/n SATPRO1
- Varian Autosampler CP-8400
- Varian MS Workstation 6.2 Software

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.

The image features a light blue background with a large, faint, light green organic shape. In the center, there is a prominent orange circle with a white border containing the white number '02'. To the left, a dark grey shape with a white outline contains an orange circle, with a thin orange line connecting it to the central '02' circle. Other elements include a white teardrop shape at the top, a small orange dot, a dark blue teardrop shape with a black dot, and a white teardrop shape with a blue and green dot at the bottom left.

Educational Labs