

Introduction

Chromatography is an exceptionally versatile and sophisticated technique used for qualitative and quantitative analyses of different compounds. Chromatography has gained immense importance in the past few years in almost every field of science. In recent epoch, chromatography is the most widely used analytical tool for various applications.

Classical methods of chromatography (such as Thin layer Chromatography and Column Chromatography) are widely used in laboratories for primary and rapid screening of chemical extracts, isolation, purification, comparison and standardizations of bioactive compounds and monitoring of newly synthesized chemicals. In contrast, liquid chromatography (HPLC, LCMS) and gas chromatography (GC, GCMS) are important analytical tools used for the identification and quantification of different biological, biochemical and chemical compounds used in almost all segments of industry and academia & research.



National Workshop on Chromatographic Techniques

30-31st October, 2017



Quality Operations Laboratory
University of Veterinary and Animal
Sciences Lahore-Pakistan
www.uvas.edu.pk

Chromatography techniques are also widely used in purification of plasma proteins, hormones, monoclonal antibodies, and vaccines as part of their development. Gas chromatography (GC) has been widely used in forensic pathology to identify the type of compounds and fluids present in the human body.

HPLC play an important and critical role in the field of pharmaceutical industries and analysis, since it is used to test the products and to detect the raw ingredient. It also helps in structure elucidation and quantitative determination of impurities and degradation products in bulk drug materials and pharmaceutical formulations.

Electrochemistry coupled with GC, liquid chromatography (LC) and Mass Spectrometry (MS), are powerful tools in the study of redox reactions involving various bioorganic molecules and also successfully used to identify the oxidation products of nucleobases, nucleotides, and nucleosides.

Objectives

- To demonstrate the importance of chromatography in different fields
- To update the latest applications of advanced chromatographic techniques
- To provide hands-on-training to participants

Program

Monday 30th October, 2017

Inaugural session

- 08:00 Registration
- 09:00 Recitation of Holy Quran
- 09:05 Welcome Address by the Dean FVS
- 09:15 Remarks by the Chief Guest
- 09:25 Remarks by the Vice Chancellor
- 09:35 Vote of thanks by the Director QOL
- 09:45 Tea

Technical Session-I

- 10:15 Isolation of DNA Restriction enzymes through Chromatography by Prof. Dr. Kausar Malik, Centre of Excellence in Molecular Biology (CEMB), Lahore
- 11:00 General Protein purification strategy by Dr. Nadeem Ahmad, CEMB, Lahore
- 11:45 Applications of Chromatography in Molecular Biology and Biotechnology by Dr. Ali Raza Awan, Associate Professor, IBBT, UVAS, Lahore
- 12:30 Affinity Chromatography, types and applications by Dr. Syed Farhat Ali, FC College University, Lahore
- 01:15 Lunch and Prayer break

Technical Session-II

- 02:00 Sample preparation techniques in chromatography by Dr. Mateen Abbas, Assistant Professor, QOL, UVAS, Lahore
- 02:45 Enzyme purification techniques by Dr. Muhammad Tayyab, Assistant Professor, IBBT, UVAS, Lahore
- 03:30 Tea



Tuesday 31st October, 2017 (Hands-on Training)

- 09:00 Column packing tactics by Dr. Muhammad Tayyab, Assistant Professor, IBBT, UVAS, Lahore
- 10:00 HPLC and GC analysis of pharmaceutical drugs, plant extracts and mycotoxins by Mr. Abdul Muqet Khan Miss Zara Hussain, QOL, UVAS, Lahore
- 11:30 Capillary Electrophoresis by Dr. Saadat Ali/Dr. Sehrish Firyal, IBBT, UVAS, Lahore

Concluding Ceremony

- 12:30 Certificate Distribution Ceremony

Patron in Chief

Patron in Chief: Prof. Dr. Talat Naseer Pasha
Vice Chancellor, UVAS Lahore.

Patron

- **Prof. Dr. Masood Rabbani**
Dean, FVS, UVAS Lahore.
- **Dr. Aamir Ghafoor Bajwa**
Director, QOL, UVAS Lahore

Organizers

- **Dr. Mateen Abbas**
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Venue

Quality Operations Laboratory (QOL)
University of Veterinary and Animal Sciences
(UVAS), Lahore

Fees

- Rs. 2,000 for faculty/entrepreneur
- Rs.1,500 for students