



ISBN: 978-81-19238-84-2

e-ISBN: 978-81-19238-85-9

Pages: 165

2024

 Printed Copy

Paperback ₹ 445/-

INSTRUMENTAL METHODS OF ANALYSIS

About the Authors

The field of pharmacy is constantly evolving, driven by the need for accurate and efficient methods of analysis to ensure the safety, efficacy, and quality of pharmaceutical products. Instrumental methods of analysis have become indispensable tools in pharmaceutical research, development, and quality control. The book titled "Instrumental Methods of Analysis" is a comprehensive guide that serves as a valuable resource for B. Pharmacy students, researchers, and professionals seeking to understand and apply instrumental techniques in pharmaceutical analysis.

Unit 1: UV Visible spectroscopy and Fluorimetry

- Spectroscopic methods are vital for the identification and quantification of drugs. This chapter delves into techniques such as UV-Vis, IR, NMR, and fluorescence spectroscopy.
- Practical applications of these techniques in pharmaceutical analysis are explored, including drug characterization, purity assessment, and stability studies.

Unit 2: IR spectroscopy, Flame Photometry, Atomic absorption spectroscopy and Nepheloturbidimetry

- This unit deals with other spectroscopic techniques like IR, Atomic spectroscopy and nepheloturbidimetry.
- Practical applications of these techniques in pharmaceutical analysis are explored, including drug characterization, purity assessment, and stability studies.

Unit 3: Introduction to Chromatography, Column chromatography, TLC, Paper Chromatography and Electrophoresis

- This unit includes Chromatographic Techniques like Column chromatography, TLC, Paper Chromatography and Electrophoresis.
- This chapter discusses the principles of chromatography, method development, and validation in pharmaceutical analysis.

Unit 4: Gas Chromatography and High-Performance Liquid Chromatography

- It includes Gas Chromatography and High-Performance Liquid Chromatography which are very much essential techniques in the field of pharmaceutical analysis.
- This chapter discusses the principles of HPLC and GC, method development, and validation in pharmaceutical analysis.

Unit 5: Ion exchange Chromatography, Gel Chromatography and Affinity Chromatography

This unit explores about Ion exchange Chromatography, Gel Chromatography and Affinity Chromatography and outlines the principle, applications in pharmaceutical research.

"Instrumental Methods of Analysis" is a comprehensive guide that equips B. Pharmacy students and professionals with the knowledge and skills needed to apply a wide range of instrumental techniques in pharmaceutical analysis. It is an essential resource for anyone aspiring to excel in the pharmaceutical industry, ensuring the safety, quality, and effectiveness of pharmaceutical products.

Yenduri Suvarna | T. Yunus Pasha | Naga Prashant Koppuravuri

(Contents)

UV Visible spectroscopy and Fluorimetry

IR spectroscopy, Flame Photometry, AAS and Nepheloturbidimetry

Chromatography- Column Chromatography, TLC, Paper Chromatography and Electrophoresis

Gas Chromatography, HPLC

Ion Exchange, Gel and Affinity Chromatography

ISBN: 978-81-19238-84-2

