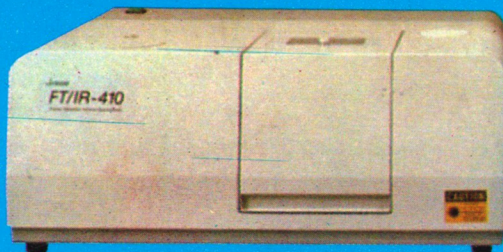
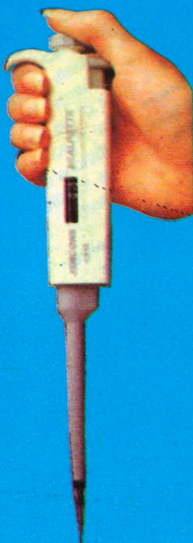
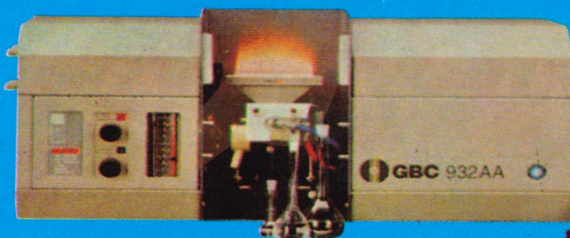
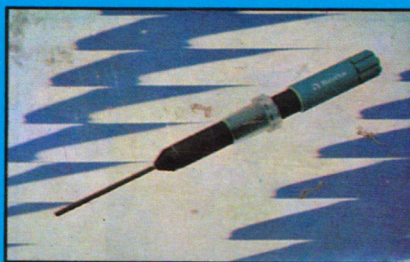


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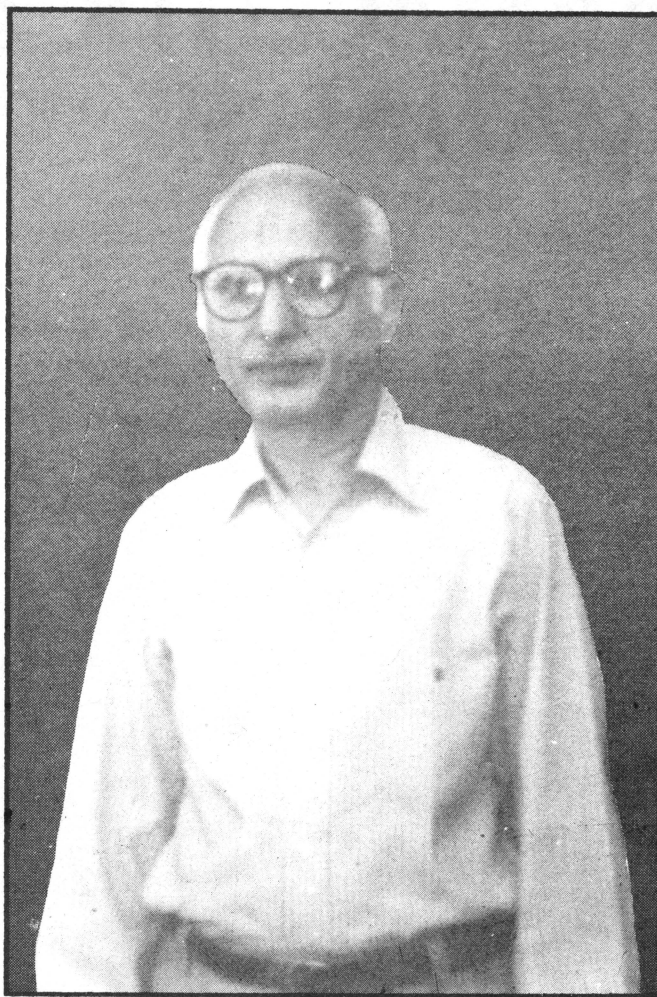
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- Publishers



Prof. P. PARIMOO
1938 - 1998

**"All great men rose in excellence because of their
unswerving devotion to the ideal to which they dedicated
themselves"**

- Mahabharata

PHARMACEUTICAL ANALYSIS

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Preface

IN the last decade or so there has been improvement in the syllabi for courses on pharmaceutical analytical chemistry and pharmaceutical analysis at B-Pharm level. Some of the Pharmacy departments as well as colleges of pharmacy have been able to acquire and expose their senior level students to some of the sophisticated analytical instruments. However, at this juncture it may become needless to say that a few advanced centres in Pharmaceutical Sciences in the country have been holding workshops on advanced instrumental methods of analysis for the M-Pharm and Ph.D. level students. With the increased awareness as well as wide spread use of drug analysis and quality control techniques it has become necessary to have an up-dated instructional material available for both pharmacy colleges as well as for drug industry in this country. Consequently in the preparation of this text book an effort has been made to unify and select material that would satisfy differing needs and at the same time keep the book to a reasonable size.

The subject material has been arranged in the form of various sections to include variety of techniques that are available under chemical, physico-chemical and instrumental methods and in the process the book will also serve the purpose of advanced students at M-Pharm and Ph.D. level.

Section 1 comprises the classical methods of analysis which are meant for the 1st year level syllabus in Pharmaceutical analysis.

The section comprising chapters 8 and 9 will be useful of practical experiments covered in Pharmacognosy at different levels in B-Pharm course.

The chapters 10, 12 and 13 can be utilized for practical work in pharmaceutical chemistry at 3rd year level.

The section under spectroscopy is dealt in great depth and is meant for 4th year level as well as M-Pharm level students. It covers a wide variety of methods for both quantitative analysis and problems on structure elucidation.

The chapter on particle size determination and differential thermal analysis can be utilized for practical work in physical pharmacy course.

The chapters which deal with NMR and mass spectroscopy, ORD, radiochemical, GLC and HPLC methods have also been covered in great detail and should prove very useful for M-Pharm and Ph.D. level students.

Unsolved problems on quantitative analysis and structure elucidation have not been included in the present format of the text book but a fair number of known spectras as well as simple experiments have been incorporated in each chapter for practice purpose to provide a working knowledge of analysis and control. These exercises can be easily performed during a practical period for most of the pharmacy courses in India.

Many colleges may not have all the laboratory equipment to derive the benefit of this practical course, but the lack of such equipment should not become a deterrent to understanding the use of drug analysis and quality control.

Although as a graduate student I took courses in analytical methods and radioisotopes but it was through teaching such a course and doing research in drug analysis, synthesis and phytochemical work that motivated me to unify and publish this textual material. As almost all of the present analytical instruments contain electronic circuitry and are also interfaced with computers, therefore terminology on these subjects have been attached in the form of appendix rather than as separate chapters.

I also wish to thank authorities at B.I.T.S., for giving me an opportunity to be in-charge of Central Analytical Laboratory facilities as well as in-charge of the course "Instrumental Methods of Analysis" for several years.

It is hoped that both students and pharmacy teachers in India will find this textual material comprehensive, effective and easy to adopt for theory and practical work on the subject of Pharmaceutical analysis.

The author wishes to express thankfulness to companies for making use of diagrams from their catalogues and books since a variety of models are available to choose from in the international market.

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