

Book Review

Ultraviolet and Visible Spectroscopy, 2d ed. Edited by M.J.K. Thomas. Chichester, UK: Wiley, 1996, xix+ 229 pp., £45.00 ISBN 0-471-9674.

Ultraviolet and visible spectroscopy are applied to many determinations of chemical species, both organic and inorganic. The fundamental quantitative analysis using ultraviolet and visible spectroscopy depends on the change in the colour of species being analysed or that of a specially added chemical indicator. These colour changes arise due to molecular and structural changes in the substances, leading to changes in the ability light in the visible region of the electromagnetic spectrum. Today UV/visible spectroscopy is an essential tool in the identification and quantitation of a broad range of chemical and biological substances especially in clinical laboratory, environmental studies, drugs and food.

In this second edition of *Ultraviolet and Visible Spectroscopy* the author aims to provide a working knowledge of modern ultraviolet/visible spectroscopy and the ability to apply the technique to a range of analytical problems. The opening chapter presents an overview of the principle concepts of UV/visible spectroscopy such as Beer's law. The following chapter discusses in more detail

the methodology for obtaining quantitative information about an analyte such as the various steps involved in sampling and in preparing a sample for analysis, the effects of solvents, acidity and reagents which may determine the quality of the absorption spectra. It explains the procedure used in analysis, the manner in which to manipulate the data and the range of applications. In addition, it presents the modern knowledge in UV/visible spectroscopy, the derivative spectroscopy, and the application of UV/visible spectroscopy in qualitative analysis and structural relationships.

This book is easy to read and suitable for training, continuing education and updating of all technical staff concerned with the analytical chemistry. Since it provides a summary and the learning objectives of each chapter, the reader's understanding of the material is challenged by self-assessment questions with reinforcing or remedial responses.

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