Infrared Spectroscopy. Fundamentals and Applications. Analytical Techniques in the Sciences (AnTs) *

Description: Analytical Techniques in the Sciences

This series of books provides coverage of all of the major analytical techniques and their application in the most important areas of physical, life and materials science. Each text is presented in an open learning/distance learning style, in which the learning objectives are clearly identified. The reader's understanding of the material is constantly evaluated by the use of self-assessment and discussion questions. Series Editor: David J. Ando

INFRARED SPECTROSCOPY: FUNDAMENTALS AND APPLICATIONS

Infrared spectroscopy is one of the most important and widely used analytical techniques available to scientists working in a whole range of fields. This book aims to provide an introduction to those needing to use infrared spectroscopy for the first time, explaining the fundamental aspects of this technique, how to obtain a spectrum and how to analyse infrared data covering a wide range of applications.

This text contains chapters covering the following aspects:

- The background theory of infrared spectroscopy.
- Instrumentation and sampling techniques.
- Spectral analysis.
- Organic molecules.
- Inorganic molecules.
- Polymers.
- Biological applications.
- Industrial applications.

Suitable questions and problems are included in each chapter to assist in the analysis and interpretation of representative infrared spectra.

This book is aimed at undergraduate and graduate chemistry students, as well as researchers in both academia and industry, and should provide a valuable addition to student coursework material and to those companies providing in-house training in the field of infrared spectroscopy.

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Preface.

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