From forensics and security to pharmaceuticals and environmental applications, spectroscopic detection is one of the most cost-effective methods for identifying chemical compounds in a wide range of disciplines. The CRC Handbook of Fundamental Spectroscopic Correlation Charts provides a collection of spectroscopic information and unique correlation charts for use in the interpretation of spectroscopic measurements.

The handbook provides useful analysis and assignment of spectra and structural elucidation of organic and organometallic molecules. The correlation charts are compiled from an extensive search of spectroscopic literature and contain current, detailed information that includes new results for many compounds. The handbook also includes graphical data charts for nuclear magnetic resonance spectroscopy of the most useful nuclei, as well as infrared, ultraviolet, and mass spectrometry data for analyses and structural determinations using multiple techniques. In addition to presenting absorption bands and intensities for a variety of important functional groups and chemical families, the book also discusses instrument calibration, diagnostics, common solvents, fragmentation patterns, several practical conversion tables, and laboratory safety.

Features

- Presents spectroscopic information in a user-friendly graphical format ideal for quick identification of unknown compounds
- Contains the most recent data from the literature, including information for many new compounds that can be analyzed and identified using these charts
- Includes multinuclear nuclear magnetic resonance spectroscopy, infrared and ultraviolet spectrophotometry, and mass spectrometry
- Provides diagnostic and calibration information not easily obtainable elsewhere
- Accommodates laboratory use with spiral binding which allows volume to lie flat on a table, so spectra can be interpreted as they are generated by the instrument

This book presents fundamental charts that are needed on a general, day-to-day basis. The CRC Handbook of Fundamental Spectroscopic Correlation Charts is an ideal laboratory companion for students and professionals in academic, industrial, and government labs.