Clearly structured, easy to read and optimal to understand, this extensive compendium fills the gap between textbooks devoted to either spectra interpretation or basic physical principles. The original Chinese editions have already sold over 18,500 copies, and the material is taken from the latest literature from around the world, plus technical information provided by the manufacturers of spectroscopic instruments.

Alongside basic methods, Professor Ning presents up-to-date developments in NMR, MS, IR and Raman spectroscopy, such as pulsed-field gradient technique, LC-NMR, and DOSY. He stresses the application of spectroscopic methods, interpreting them in great detail and depth since most of the selected spectra may be applied to practical work, as well as summarizing the rules for their interpretation. He also incorporates his original ideas, including a comparison of the common points in different spectroscopic techniques.

This monograph features a unique structure, a typical example being the discussion of 2D NMR starting from pulse sequence units, which construct various pulse sequences for related 2D NMR. A complete chapter deals with the determination of configurations and conformations of organic compounds and even biological molecules from the viewpoint of spectroscopic methodologies, while one whole section is dedicated to the interpretation of mass spectra produced by soft ionization techniques.

The principles of mass analyzers, especially the ion trap, are discussed in great depth, together with a concise summary of the MS fragmentation and rearrangement of common compounds, allowing readers to easily predict related mass spectrometric reactions. All the three kinds of library retrieval of mass spectra are presented in detail, together with recent developments in molecular vibration spectroscopy. The whole is rounded off with several appendices, including a subject index for rapid reference.
With a foreword by the Nobel prizewinner, Richard R. Ernst.

ABOUT THE AUTHOR

Yong-Chen Ning studied at the Engineering-Physics Department of the Tsinghua University, Beijing, China where after his graduation he worked as a faculty member. From 1971 to 1978 he researched on structural identification of organic compounds at the Institute of Chemical Engineering in Shenyang. Between 1981 an 1984 Yong-Chen Ning participated in researches in the NMR, MS, X-ray diffraction an alkaloid laboratories of the Institute of Chemistry of Natural Substances in Paris. Since 1993 he is a full professor at the Tsinghua University. Yong-Chen Ning's books won several awards, e.g. the price for excellent teaching materials, and belong to the standard repertoire of chinese students.

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