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DESCRIPTION

Combines clear and concise discussions of key NMR concepts with succinct and illustrative examples

Designed to cover a full course in Nuclear Magnetic Resonance (NMR) Spectroscopy, this text offers complete coverage of classic (one-dimensional) NMR as well as up-to-date coverage of two-dimensional NMR and other modern methods. It contains practical advice, theory, illustrated applications, and classroom-tested problems; looks at such important ideas as relaxation, NOEs, phase cycling, and processing parameters; and provides brief, yet fully comprehensible, examples. It also uniquely lists all of the general parameters for many experiments including mixing times, number of scans, relaxation times, and more.

*Nuclear Magnetic Resonance Spectroscopy: An Introduction to Principles, Applications, and Experimental Methods, 2nd Edition* begins by introducing readers to NMR spectroscopy - an analytical technique used in modern chemistry, biochemistry, and biology that allows identification and characterization of organic, and some inorganic, compounds. It offers chapters covering: Experimental Methods; The Chemical Shift; The Coupling Constant; Further Topics in One-Dimensional NMR Spectroscopy; Two-Dimensional NMR Spectroscopy; Advanced Experimental Methods; and Structural Elucidation.

- Features classical analysis of chemical shifts and coupling constants for both protons and other nuclei, as well as modern multi#pulse and multi-dimensional methods
- Contains experimental procedures and practical advice relative to the execution of NMR experiments
• Includes a chapter-long, worked-out problem that illustrates the application of nearly all current methods

• Offers appendices containing the theoretical basis of NMR, including the most modern approach that uses product operators and coherence-level diagrams

By offering a balance between volumes aimed at NMR specialists and the structure-determination-only books that focus on synthetic organic chemists, *Nuclear Magnetic Resonance Spectroscopy: An Introduction to Principles, Applications, and Experimental Methods, 2nd Edition* is an excellent text for students and post-graduate students working in analytical and bio-sciences, as well as scientists who use NMR spectroscopy as a primary tool in their work.

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