



## NMR Spectroscopy Explained: Simplified Theory, Applications and Examples for Organic Chemistry and Structural Biology

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Wiley-Interscience, 2007. Book Condition: New. Brand New, Unread Copy in Perfect Condition. A+ Customer Service!  
 Summary: Preface. Acknowledgments. 1 Fundamentals of NMR Spectroscopy in Liquids. 1.1 Introduction to NMR Spectroscopy. 1.2 Examples: NMR Spectroscopy of Oligosaccharides and Terpenoids. 1.3 Typical Values of Chemical Shifts and Coupling Constants. 1.4 Fundamental Concepts of NMR Spectroscopy. 2 Interpretation of Proton ( $^1\text{H}$ ) NMR Spectra. 2.1 Assignment. 2.2 Effect of  $B_0$  Field Strength on the Spectrum. 2.3 First-Order Splitting Patterns. 2.4 The Use of  $^1\text{H}$ - $^1\text{H}$  Coupling Constants to Determine Stereochemistry and Conformation. 2.5 Symmetry and Chirality in NMR. 2.6 The Origin of the Chemical Shift. 2.7 J Coupling to Other NMR-Active Nuclei. 2.8 Non-First-Order Splitting Patterns: Strong Coupling. 2.9 Magnetic Equivalence. 3 NMR Hardware and Software. 3.1 Sample Preparation. 3.2 Sample Insertion. 3.3 The Deuterium Lock Feedback Loop. 3.4 The Shim System. 3.5 Tuning and Matching the Probe. 3.6 NMR Data Acquisition and Acquisition Parameters. 3.7 Noise and Dynamic Range. 3.8 Special Topic: Oversampling and Digital Filtering. 3.9 NMR Data Processing-Overview. 3.10 The Fourier Transform. 3.11 Data Manipulation Before the Fourier Transform. 3.12 Data Manipulation After the Fourier Transform. 4 Carbon-13 ( $^{13}\text{C}$ ) NMR Spectroscopy. 4.1 Sensitivity of  $^{13}\text{C}$ . 4.2 Splitting of  $^{13}\text{C}$ ...

### Reviews

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