Basic One- and Two-Dimensional NMR Spectroscopy, 4th Edition; edited by H. Friebolin; Wiley-VCH: Weinheim, **2004**, paperback, 430 pp, $ 64.95, ISBN: 3-527-31233-1

Nuclear magnetic resonance spectroscopy is arguably the most important instrumental method in organic chemistry, where it occupies an unrivalled position in molecular structure determination. Every organic chemist therefore needs to have a sound understanding of its physical basis, its potential, problems and limitations. Like all intra-atomic phenomena, the magnetic properties of atomic nuclei is a distinctly quantum-physical property. Any introduction to the field aimed at chemists and/or biochemists ought therefore try to attempt a balance between the necessary, desired precision, and not getting lost in mathematical wizardry beyond the scope of an audience mainly interested in putting a method to good use. Users of three previous editions have come to hold this book in high esteem for keeping this balance almost perfectly. The author's desire not to boast his mastership of the topic at the expense to leave scores of otherwise willing readers behind is nicely borne out by a most appropriate quote from the classical german literature which he used as his motto (cf. beginning of preface).

From the first edition, *Basic One- and Two-Dimensional NMR Spectroscopy* had several merits: the first and foremost may be its clear, concise, straightforward writing style that is present in both the german and the english editions. Next is the very managable length of the treatise that coincides perfectly with the amount of information most of us want – it is neither too brief to leave the reader with a feeling of want, nor is it too voluminous to become tedious or to risk losing the reader in an isotropic forest, unable to see it for the trees. Although it is not explicitly aimed at the organic chemist, it focuses mostly on the most useful nuclei for NMR studies, ^{1}H and ^{13}C. Other atomic nuclei with magnetic momenta worthy of spectroscopic exploitation such as ^{10}B, ^{11}B, ^{43}Ca, ^{59}Co, ^{19}F, ^{26}Mg and ^{31}P, are mentioned at a glance; the most extensive excursions, Sections 1.7 and Section 2.5 on chemical shifts of other nuclides, comprise only five pages. The bulk of the book revolves around ^{1}H and ^{13}C, thereby suiting in particular the needs of the organic chemist. Chemists entertaining different interests will have to consult other sources for in-depth information, but they will nevertheless profit from the lucid description of both the basics and of the varied applications of the methods found in this account. Saying that it is accessible and refering to the word 'basic' in its title is not meant to convey the message that the treatise is in any way shallow; to the contrary, and particularly in later chapters, the discussion is demanding and provides a challenge for all students.

The introduction to the quantum physical principles underlying the method is kept brief. The author dives into the practicalities of the NMR experiment and its multitude of variations currently available. The reader is assumed to have been exposed to physical chemistry, including the fundamentals of quantum behaviour, before. The primary user is the advanced undergraduate student who sets out to take advanced courses in structural/physical organic chemistry or similar courses in physical or analytical chemistry with an emphasis in spectroscopy of all sorts.

The book's overall structure is based on the logical principle to progress from the basic to the advanced, from easy-to-grasp fundamentals to sophisticated 'cutting edge' applications.

The two final chapters concern themselves with topics reaching beyond the usual realm of 'ordinary' organic (Chapter 13) and applications of NMR in biochemistry and medicine (Chapter 14). Progress in magnet technology and a mind-boggling increase in computer power during the last two decades have allowed nuclear magnetic resonance measurements to jump 'out of the test tube' and into the 'real world' of macroscopic objects. The discussion is sufficiently sophisticated to make the book good value even for candidates wishing to specialize in NMR studies (and who have likely been drawn into the subject matter's clutches by studying this introduction in the first place). Those who will limit themselves to really basic studies during a first encouter, or who are interested in special methods, may profitably consult only selected chapters. Whatever the impulse to concern oneself with NMR (compulsory or voluntarily), *Basic One- and Two-Dimensional NMR Spectroscopy* is a very good starting point. The book is also especially recommended to biochemists, medicinal chemists, and others with still different backgrounds and who maybe not look back on a comprehensive training in physical chemistry but would nevertheless like to understand (!) NMR in addition to merely employing it as a 'black box technique' (an approach which will necessarily limit its usability and may even lead to erroneous use, as has been clearly pointed out by John Roberts in his foreword to this fourth edition). What more could be said on behalf of this nice volume that has not been said before – either here or in other comments on previous editions? The best testimony is doubtless given by the book itself: go and read and be convinced by what it has to tell you. Good, clean peaks to all!

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