

Keynotes in Organic Chemistry; by Andrew F. Parsons; Blackwell: London, 2003; softcover, 240 pp, £13.99; ISBN: 0-632-05816-1

This book aims to provide concise notes for students studying chemistry and related courses at undergraduate level and this aim is achieved extremely well. The format of the book is that key concepts, central to organic chemistry, are summarised and noted in bullet point fashion, with each concept being widely exemplified by a series of illustrations and/or mechanisms. Whilst the book is therefore rather succinct, it does not lack detail or clarity. Information is presented in a different form to standard core organic chemistry text books, and I am certain that this approach will prove popular with students. It is useful as a quick reference text, or as a source of revision notes for important concepts.

Basic principles and definitions are introduced in the first three chapters, but the author then quickly moves on to introduce functional group chemistry and reactivity, and aspects of mechanistic chemistry. There is excellent subject coverage and topics that are covered in detail include Structure and Bonding (including a discussion of acidity and basicity); Functional Groups, Nomenclature and Drawing Organic Compounds; Stereochemistry (including conformational and configurational isomers); Reactivity and Mechanism (including addition, elimination, substitution and rearrangement reactions); Alkyl halides (including structure, preparation and reactions); Alkenes and Alkynes (including structure, preparation and reactions); Benzenes (including heterocyclic derivatives); Carbonyl compounds (including aldehydes and ketones and carboxylic acids and their derivatives); Spectroscopy (including Mass spectrometry, UV, IR and NMR spec-

troscopy); and Natural Products and Synthetic Polymers (including carbohydrates, lipids, amino acids, peptides and proteins, nucleic acids and addition and condensation polymers). A series of appendices then provide data for bond dissociation energies, bond lengths, pKa values, useful abbreviations, IR absorptions and approximate ^1H NMR chemical shifts for specific functional groups.

There are a number of strengths to this book. Firstly, the usage of diagrams and key phrases / bullet points is excellent, making the book user friendly and educationally sound. Moreover, the material in the book is introduced and exemplified in an extremely clear and logical fashion. Second, useful questions have been provided at the end of each chapter, to probe the student's understanding of the concepts discussed. In addition, brief but informative outline answers are also provided, with mechanistic detail, at the end of the book. Third, the book complements, rather than competes with, standard core texts. It is distinct in its approach and should not be considered as just another organic chemistry text-book - most undergraduates would be able to use this book alongside their traditional core text, and it would reinforce material from traditional lecture courses extremely well. I imagine that this book will prove popular with undergraduates and I would be happy to recommend this book to my students - I am sure that their knowledge, understanding and enjoyment of chemistry would improve as a consequence.

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