

Book Reviews

Principles of Organic Synthesis, 3rd Edition. By R. O. C. Norman and J. M. Coxon. Blackie Academic and Professional: Glasgow; 1993, 382 pp., paperback. £ 22.50. ISBN 0-7514-0126-9.

I brought the first edition of Norman's *Principles of Organic Synthesis* in 1968 because at the time it offered a unique insight of how a familiarity with basic chemical concepts and reactions could be applied to the challenges presented by organic synthesis. However, the book also provided clear accounts of the mechanisms of organic reactions and was an excellent undergraduate book in its own right covering the whole range of topics presented to students of organic chemistry.

Now the third edition of this book is available and I'm equally enthusiastic about it. Thus, although the contents have changed to keep pace with the new technology and objectives, the style and readability are the same. Thankfully, the book has not expanded under peer pressure to include everyone's pet subject, but it does focus on all the essentials and a bit more besides. It begins with chapters on chemical thermodynamics, molecular structure, chemical kinetics and reaction mechanisms. These are followed by a survey of stereochemistry and consideration of simple organometallic reagents and their applications. Base and acid promoted reactions are dealt with next, then pericyclic processes and the formation of carbon–nitrogen bonds. A survey of aromatic reactions precedes chapters dealing with the chemistry of phosphorus, sulfur, silicon and boron reagents, as well as commentaries on photochemical and radical reactions and organo transition metal chemistry. The book continues with chapters devoted to heterocyclic reactions and ring constructions and ends with examples of syntheses from a selection of natural products, which neatly draw together the methodologies introduced earlier.

The book is extremely informative and should appeal to undergraduates and postgraduates alike. I can recommend it without reservation.

Malcom Sainsbury, University of Bath, England

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