

## Book review

*Organic Reactions, Simplicity and Logic*  
Pierre Laszlo, Wiley, Chichester, 1995, £60  
ISBN 0-471-93933-1

The title of this book raised very high expectations. An appreciation of the logic of organic synthesis requires a thorough understanding of the factors that govern the outcome of organic reactions. Indeed an important part of the teaching of synthetic organic chemistry involves the rationalization of reactions in terms of current theory. The object of this book is to present the rationalization of synthetically useful reactions, many of which utilize organometallic reagents, and to illustrate their application with relevant examples drawn from recent work.

The first part of the book is devoted to a discussion of carbonyl and enolate chemistry and the associated factors governing regio- and stereoselectivity. Considerable attention is paid to the role of orbital control. This section is followed by chapters on the reversal of carbonyl polarity, and then by chapters on the construction of rings and the use of the Diels–Alder reaction in synthesis. There are a number of chapters on functionalization including nucleophilic substitution, reduction, oxidation, epoxidation and the application of epoxides. The theme of addition: elimination reactions is applied to electrophilic additions and to the Wittig reaction. The

last part of the text introduces the ideas of donor and acceptor synthons and the principles of retrosynthetic analysis.

The book is a translation of a French textbook *Logique de la Synthèse Organique* which, in turn was derived from a lecture course given by the author at the Ecole Polytechnique. Each group of chapters contains in a highlighted form, the main core material of the lecture course together with the 'asides' that the author used to illustrate and enliven the presentation. Some of these are relevant but others are tangential to the main thrust of the chapter, and indeed can serve to act as a distraction rather than an illustration.

The disappointing aspect of this book is the very high number of mistakes, particularly in the diagrams. These range from the inaccurate drawing of arrows denoting electron movement to structures that are wrong and from which salient atoms are omitted. These mistakes detract from what could otherwise be a useful book providing an interesting commentary on organic reactivity.

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