

Book Review

Biotransformations in organic chemistry: a textbook, 3rd ed., K. Faber. Berlin: Springer-Verlag, 1997, x+402 pp., DM58.00 ISBN 3-540-61688-8.

Biotransformations in organic chemistry is an important contemporary discipline because of the current interest in industrial biotechnology which involves the application of biocatalysts to carry out various reactions and conversions. It draws on several scientific and technical disciplines, including microbiology, biochemistry, genetics, biochemical engineering, chemistry, mathematics and economics. With high financial and infrastructure investments, plus intensive human source developments in the area of biotechnology; therefore this third edition of *Biotransformations in Organic Chemistry* is very timely appropriate to provide fundamental understanding about biocatalysts as well as give information on the latest developments to the reader.

The book is divided into five sections with splendid introduction and background information about biocatalysts in Chapter 1. The common prejudices against biocatalysts, the advantages and disadvantages, and the properties of enzymes are among the topics highlighted in the introduction section. It will give a better perception with respect to biotransformation method especially to the classical organic chemists. The second section describes the various types of biocatalytic applications which cover hydrolytic, reduction,

oxidation, formation of carbon-carbon bonds and glycosyl-transfer reactions. With a wide range of enzymes available for different types of organic synthesis, the reader will definitely find the second section is very informative and useful. Furthermore, the biocatalytic reactions can also be carried out in organic media with minimum loss of activity, as explained in the third section of the book. Overall, the references for each section are comprehensive and there is an appendix at the back of the book which highlights the abbreviations used in enzymology, a list of enzyme suppliers, commonly used lipase preparations, major culture collections, and a list of pathogenic bacteria and fungi. These facts and explanations give a sound understanding and knowledge to the reader who likes to venture this challenging area of science. Students, researchers and academicians who are majoring in biotechnological related discipline are encouraged to have the book in their collection and make full use of the current state of art for the benefits of mankind.

John F. Kennedy
Wan H. Wan Hassan
Birmingham Carbohydrate and Protein Technology Group,
The University of Birmingham,
Edgbaston,
Birmingham B15 2TT,
UK