

postgraduate students and practising chemists, both in industry and academia.

'Organic Chemistry' is divided into eleven main chapters which cover general chemistry, aliphatics, alicyclics, carbohydrates, aromatics, isoprenoids, heterocyclics, amino acids, peptides and proteins, nucleic acids, enzymes, and metabolic processes, respectively. Each chapter is divided logically into subsections, complete with literature references. The chapter on carbohydrates provides an excellent overview of the structure and chemistry of monosaccharides, and the structure and properties of oligosaccharides and polysaccharides, in more detail than would normally be expected in a general textbook. In fact, the content of bioorganic chemistry and biochemistry based information contained within this book is significant, making it an excellent all-encompassing text. The volume also includes detailed appendices which contain information on hazardous substances and carcinogenic materials, named reactions and concepts, and an extensive subject index.

'Organic Chemistry' has been described as a rare find among English-language texts since it is also packed with useful details concerning practical organic chemistry and industrial processes e.g. there are two sections devoted to petroleum chemistry. It contains a wealth of up-to-date information and is highly recommended as a value for money text for all individuals involved with any aspect of organic chemistry in academia and industry.

C.J. Knill, J.F. Kennedy\*

*Birmingham Carbohydrate & Protein Technology Group,  
School of Chemistry, The University of Birmingham,  
Birmingham B15 2TT, UK*

\* Corresponding author. Tel.: + 44-121-414-7029; fax: + 44-121-414-7030.

E-mail address: jfkennedy@chemistry.bham.ac.uk (J.F. Kennedy)

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PII: S0144-8617(99)00094-6

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***Industrial Enzymes and their Applications; H. Uhlig, E.M. Linsmaier-Bednar; John Wiley & Sons, Inc., New York, 1998, 454 pages, ISBN 0-471-19660-6, £80.00***

Enzymes have always played a substantial role in the development of new products and have aided in the

furthering of certain products. Types of industries that utilise enzymes are always growing but some of the main ones are, food processing, beverage production, animal nutrition, leather, textiles and detergents. Defined as being biological catalysts, enzymes are primarily used in industries to speed up reaction times and lower the cost of product production. This is due to the fact that enzymes can be re-used as they are not lost in the reaction, hence they are financially highly economical.

*Industrial Enzymes and their Applications* provides a breakdown of numerous enzymes and their various applications. It groups enzymes into specific categories and which chemical agent they can be substituted for on production lines. The text under review covers a wide range of subjects ranging from general enzyme characteristics such as pH and temperature stability and how they effect activity, to precise determination of microbiological origin.

The book also delves into some of the most important and widely utilised enzymes such as; proteases, ester cleavage fat hydrolysing enzymes, carbohydrate hydrolysing enzymes, and immobilised enzymes. Contained within the text are many protocols which are aided with well presented diagrams and orthodox tables. The text is primarily aimed at the professional researcher but could also be utilised by students studying in related fields as a highly informative aid.

Over all, this book is well presented, a fair length (having 454 pages), thorough and a very readable text. A fine publication that we are sure will be high utilised and should not go a miss in any researcher's collection.

J.F. Kennedy\*, J.D. Law

*Birmingham Carbohydrate & Protein Technology Group,  
The University of Birmingham, Birmingham  
B15 2TT, UK*

\* Corresponding author. Tel.: + 44-121-414-7029; fax: + 44-121-414-7030.

E-mail address: jfkennedy@chemistry.bham.ac.uk (J.F. Kennedy)

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PII: S0144-8617(99)00095-8