



## Enzyme Technology, 2/e

S. Shanmugam, M. Shanmugaprakash & T. Sathishkumar

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### About the Book

What are enzymes? How do they behave? How are they obtained? What are their uses? This book manages to cover all this. Most of the young workers in R&D of biotechnological industries would find it useful for a quick introduction.

— Current Science, Vol. 96, No. 11, 2009.

This book gives a broad account of enzymology and aims to put the current knowledge into perspective. The chapters follow a progression from the properties of isolated enzymes to the behaviour of enzymes in increasingly complex systems, leading up to the cell. Included is the discussion on the importance of enzymes in medicine and industry.

This book discusses the behaviour of isolated enzymes, dealing in turn with isolation methods, structural characterization, kinetics, catalytic action and control of activity, immobilization methods and various applications of enzymes. The methods for isolation and characterization of enzymes are now well-established procedures, so the rate at which three-dimensional structures and mechanisms are being determined is increasing dramatically. Ultimately it is necessary to know the behaviour of enzymes in living cells. This involves in part a synthesis of the information obtained from the study of isolated enzymes, but it also requires detailed knowledge of the molecular morphology of the cell, which in turn requires methods for making measurements on intact cells.

The study and applications of enzymes have assumed increasing importance both in medicine and in industry and a discussion of these aspects is therefore given prime importance.

This book will be of immense use to all the UG and PG students of Biotechnology engineering and science students and also to other the sciences students and research scholars.

New to this edition: Apart from updating the complete text wherever required new material has been added., namely, "Mechanism of Enzyme Activities in Organic Solvents" and "Immobilization Kinetics".

### Salient Features

- ▶ New topics like, mechanism of enzyme action in organic solvents and immobilization kinetics have been added in this second edition.
- ▶ Spread in 8 chapters, the book deals with history, classification, extraction and isolation, its purification, kinetics, immobilization, applications, and biosensors.
- ▶ The reaction mechanisms have been given appropriate coverage, with the help of equations and diagrams.
- ▶ Explains buffer preparation for enzymes at the end of the book.

### Table of Contents

- ▶ Introduction
- ▶ Enzyme Classification
- ▶ Enzyme Extraction and Isolation
- ▶ Purification of Enzymes
- ▶ Enzyme Kinetics
- ▶ Enzyme Immobilization
- ▶ Enzyme Applications
- ▶ Enzyme Biosensors
- ▶ Index

### About the Author

**S. Shanmugam** :- S. Shanmugam is Assistant Professor, Department of Microbiology, Government College of Arts & Science, Krishnagiri, Tamil

Nadu.

**M. Shanmugaprasadh** :- M. Shanmugaprasadh is Assistant Professor, Department of Biotechnology, Kumaraguru College of Technology, Coimbatore, Tamil Nadu.

**T. Sathishkumar** :- T. Sathishkumar is Assistant Professor, Department of Biotechnology, Kumaraguru College of Technology, Coimbatore, Tamil Nadu.