

Biocatalysis

Biochemical Fundamentals and Applications

The book treats in depth the fundamentals of the field of biocatalysis. It of course does not substitute existing biochemistry textbooks but will serve as a suitable supplement for students and teachers as it discusses biochemical fundamentals in connection with the respective topics.

The topics covered range from basic enzyme chemistry (biosynthesis, structure, properties, kinetics) to a detailed description of catalytic mechanisms. It covers the fundamentals of the different enzyme classes together with their applications in native and immobilized state in aqueous as well as non-conventional media. Topics that often are not treated in detail (or even not at all) in existing biocatalysis books or biochemistry textbooks such as catalytic antibodies, nucleic acid catalysts, non-ribosomal peptide synthesis, evolutionary methods, and the design of cells are included in separate chapters.

With focus on the interdisciplinary nature of biocatalysis, the book contains many aspects of fundamental organic chemistry and some of inorganic chemistry as well which should make it interesting not only for biochemistry but also for chemistry students. It may also be useful for those being active in biocatalysis research and related fields in academic or industrial institutions. An important theme being emphasized in the book is that applied biocatalysis is one of the main prerequisites for a sustainable development.

Imperial College Press

www.icpress.co.uk

P483 sc

ISBN-13 978-1-85194-771-1 (pbk)
ISBN-10 1-85194-771-9 (pbk)



9 781860 947711