Biocatalysts are increasingly used by chemists engaged in fine chemical synthesis within both industry and academia. Today, there exists a huge choice of high-tech enzymes and whole cell biocatalysts, which add enormously to the repertoire of synthetic possibilities.

Practical Methods for Biocatalysis and Biotransformations 2 is a "how-to" guide that focuses on the practical applications of enzymes and strains of microorganisms that are readily obtained or derived from culture collections. The sources of starting materials and reagents, hints, tips and safety advice (where appropriate) are given to ensure, as far as possible, that the procedures are reproducible. Comparisons to alternative methodology are given and relevant references to the primary literature are cited. This second volume – which can be used on its own or in combination with the first volume - concentrates on new applications and new enzyme families reported since the first volume. Contents include:

• introduction to recent developments and future needs in biocatalysts and synthetic biology in industry

• reductive amination

• enoate reductases for reduction of electron deficient alkenes

• industrial carbonyl reduction

• regio- and stereo- selective hydroxylation

• oxidation of alcohols
Practical Methods for Biocatalysis and Biotransformations 2 is an essential collection of biocatalytic methods for chemical synthesis which will find a place on the bookshelves of synthetic organic chemists, pharmaceutical chemists, and process R&D chemists in industry and academia.

ABOUT THE AUTHOR

John Whittall, Manchester Interdisciplinary Biocentre, Manchester University, UK.

Peter W Sutton, GlaxoSmithKline Research and Development Limited, UK.

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