

PRACTICAL METHODS FOR BIOCATALYSIS AND BIOTRANSFORMATIONS

Editors

JOHN WHITTALL

CoEBio3, Manchester Interdisciplinary Biocentre, Manchester University, UK

PETER W SUTTON

GlaxoSmithKline Research and Development Limited, UK

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 is a "how-to" guide focussing on commercially available enzymes and strains of microorganisms that are readily obtained from culture collections. The source 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. Contents include:

- Introduction to the application of biocatalysts in the pharma industry
- Introduction to molecular biological techniques for biocatalyst development
- Lipase and protease methods including enzyme supports and dynamic kinetic resolutions
- Nitrile hydrolases and hydratases
- Alcohol dehydrogenases and co-factor recycling
- Epoxide hydrolases
- Amino acid synthesis
- Whole cell processes
- Other biocatalysts, including monoamine oxidases, aminotransferases, and lyases

Practical Methods for Biocatalysis and Biotransformations is an essential text offering validated biocatalyst methods for researchers and postgraduate students in industry and academia.



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ISBN 978-0-470-51927-1



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