DESCRIPTION

This introduction collects 17 innovative approaches to engineer novel and improved proteins for diverse applications in biotechnology, chemistry, bioanalytics and medicine. As such, key developments covered in this reference and handbook include de novo enzyme design, cofactor design and metalloenzymes, extremophile proteins, and chemically resistant proteins for industrial processes. The editors integrate academic innovations and industrial applications so as to arrive at a balanced view of this multi-faceted topic.

Throughout, the content is chosen to complement and extend the previously published two-volume handbook by the same editors, resulting in a superb overview of this burgeoning field.

ABOUT THE AUTHOR

Stefan Lutz holds a B. S. degree from the Zurich University of Applied Sciences (Switzerland), and a M.S. degree from the University of Teesside (UK). He then obtained a Ph.D. from the University of Florida and spent three years as a Postdoc with Stephen Benkovic at Pennsylvania State University under a fellowship of the Swiss National Science Foundation. Since 2002 he has been a Chemistry professor at Emory University in Atlanta, Georgia (USA). The research in the Lutz laboratory focuses on the structure-function relationship of proteins through combinatorial protein engineering and design.
Uwe Bornscheuer studied Chemistry at the University of Hannover (Germany), where he obtained a Ph. D. at the Institute of Technical Chemistry. He then spent a postdoctoral year at the University of Nagoya, Japan, before returning to Germany to join the Institute of Technical Biochemistry at the University of Stuttgart. Since 1999 he has been Professor for Biotechnology and Enzyme Catalysis at the University of Greifswald. His main research interest is the application of engineered enzymes in the synthesis of optically active compounds and in lipid modification.

For additional product details, please visit https://www.wiley.com/en-us