

"Dr. Stein . . . make[s] a difficult topic easy to understand and comprehend."

— Richard Harrison, Wyeth Research

DETAILS ON THE APPROACHES AND APPLICATIONS ESSENTIAL TO KINETICALLY CHARACTERIZING ENZYME INHIBITORS FOR DRUG DISCOVERY

The ability of enzymes to bring about the transformation of one chemical substance into another makes them the favorite—and most productive—drug target in the pharmaceutical industry. *Kinetics of Enzyme Action* explores, in depth, the characteristics and applications of these proteins and their vital role in the development of new medicines by placing the subject of enzymology in a historical context that enriches and heightens understanding of this complex science. It introduces readers to a wide range of topics invaluable for helping them discover and kinetically characterize enzyme inhibitors—from simple, one-substrate enzyme reactions to the more complex two-substrate enzymes reactions. Some of the highlights in this book include:

- A detailed description of enzyme kinetics as applied to drug discovery
- A comprehensive collection of theory and pragmatic approaches to guide readers in the science of performing detailed enzyme mechanistic studies
- An outline of the tools and techniques necessary to perform, understand, and interpret detailed kinetic studies for drug discovery
- Numerous case studies from scientific literature that bring the topics to life

From discussion of the early developments in the kinetics of enzymatic reactions to fresh insights on contemporary enzymology, *Kinetics of Enzyme Action* offers comprehensive coverage of a discipline that holds vital significance for all pharmaceutical practitioners.

ROSS L. STEIN received his PhD in physical organic chemistry from Indiana University in 1978, after which he conducted post-doctoral research in mechanistic enzymology at the University of Kansas. His career has included positions at Merck, where he headed the Enzymology Department, and ProScript (acquired by Millennium in 1999) as vice president of biochemistry. At ProScript, Dr. Stein was instrumental in the pre-clinical development and co-inventor of the drug VELCADE™, a proteasome inhibitor used to treat multiple myeloma. In 2001, he accepted a position at Harvard Medical School to establish and head the Laboratory for Drug Discovery in Neurodegeneration. Most recently, from 2009–2011, Dr. Stein was vice president of drug discovery at Sirtris Pharmaceuticals.

Subscribe to our free Chemistry eNewsletter at
wiley.com/enewsletters

Visit wiley.com/chemistry

 **WILEY**
wiley.com

ISBN 978-0-470-41411-8
90000



9 780470 414118