

## Book Reviews

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**A Lifetime of Synergy with Theory and Experiment.** By Andrew Streitwieser. In **Profiles, Pathways and Dreams**. Series Editor Jeffrey I. Seeman. American Chemical Society, Washington, DC. 1997. xxvii + 310 pp. 15.5 × 23.5 cm. ISBN 0-8412-1836-6. \$24.95.

This is the latest in this series of autobiographies of famous chemists edited by Jeffrey I. Seeman. In his preface, Dr. Seeman writes that "My goal for Profiles was to document the development of modern organic chemistry by having individual chemists discuss their roles in this development". Few would argue with the fact that Andrew Streitwieser has been a key figure involved in this development process for the past several decades, especially in the areas of physical organic and theoretical organic chemistry.

Reading Streitwieser's personal account of his life and career was quite a treat for me as I have known him personally for more than 30 years and have heard bits and pieces of the many stories he tells about himself over that period. For example, he published his first scientific paper (as a sole author) in the *Journal of the American Chemical Society* as a high school student at age 17! The book contains a detailed account of his training (Ph.D. with William von Eggers Doering at Columbia and a year of postdoctoral training with J. D. Roberts at MIT) and his subsequent, remarkable independent academic career at the University of California, Berkeley. The book is full of photographs of relatives, friends, and colleagues (Streitwieser, himself an award-winning amateur photographer, provided most of the photographs). Not only does he reveal his major scientific accomplishments in some detail, he renders it all even more interesting by providing the intellectual framework that led to his major ideas. In so doing he has been refreshingly frank in discussing some of his own limitations, in attributing some of his discoveries to serendipity, and in freely acknowledging the contributions of his many co-workers and colleagues.

The title of the book is important and revealing. Streitwieser's lifetime has certainly resonated with both theory and experiment. What Streitwieser has also shown in his distinguished career is that theory and experiment are most valuable when they are used together in a coordinated way to help solve mechanistic problems in chemistry. One done in the absence of the other is simply less powerful.

Streitwieser is best known for his early work on solvolytic displacement mechanisms, his classical work on determining (and estimating) the  $pK_a$  values of a host of hydrocarbons, his invention of uranocene and other related examples of f-orbital organometallic chemistry, his textbook on molecular orbital theory for organic chemists, and his very popular introductory organic chemistry text, coauthored with his colleague, Clayton Heathcock.

But Streitwieser does not limit this book to his scientific career. He has also sprinkled the text with numerous personal recollections and experiences, many pleasant but some rather painful, that provide a very human backdrop for his tale. It all makes for fascinating and inspirational reading, especially for those of us who have admired his keen intellect, dedication to science, and zest for life over the years.

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**Medicinal Chemistry: Today and Tomorrow.** Edited by Mikio Yamazaki. Blackwell Science Ltd., Oxford. 1997. x + 278 pp. 19.5 × 28 cm. ISBN 0-632-04272-9. \$99.95.

This compendium contains the Proceedings of the Asian Federation for Medicinal Chemistry (AFMC) International Medicinal Chemistry Symposium (AIMECS 95) held in Tokyo, Sept 3–8, 1995, in collaboration with the European Federation for Medicinal Chemistry (EFMC) and the American Chemical Society, Division of Medicinal Chemistry (USMC). This excellent meeting could not easily be attended by all those interested because of proximity and expense. The availability of the proceedings through university, government, and industrial libraries will ensure a greater exposure to the topics discussed. These include several discussions on selected microbial and marine natural products, pharmacophore-based drug design, targeted drug delivery, cytokine, AMPA/kinate, kappa, glutamate, angiotensin II, prostanoid, and endothelin receptors, AIDS, and HIV protease, DNA gyrase, *myo*-inositol phosphates, antidiabetic drugs, sulfate radical chemistry, asymmetric synthesis, Chinese traditional medicine constituents, drug metabolism, calcium-mediated toxicities, peptide membrane permeability, polymer conjugate drugs, recombinant human glycoprotein, sphingoglycolipids, glycoconjugate synthesis, gene regulatory molecules, and orphan drug policy.

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