

Book Reviews

Peptidomimetic Protocols. Edited by Wieslaw M. Kazmierski. Humana Press, Totowa, NJ. 1999. xxx + 549 pp. 15.5 × 24 cm. ISBN 0-846-03517-4. \$89.50.

Peptidomimetic Protocols is Volume 23 in a series of books on *Methods in Molecular Medicine*. Books in this series generally present laboratory protocols in a style similar to that of the familiar *Organic Syntheses* series. In this volume, the subject matter is chemical structures which can replace peptides in designing nonpeptidic ligands. There are 30 chapters, covering such topics as nonstandard amino acids, linear and heterocyclic replacements for peptide backbones, peptide isosteres, peptide prodrugs, and transition-state mimics.

A typical chapter describes synthesis of Cbz-protected ketomethylene dipeptide isosteres. The introduction describes strategies for assembling this isostere. The Materials section lists the reagents used. The Methods section then gives detailed experimental procedures for preparing 25 different compounds. A brief Discussion section covers diastereoselectivity of the reactions described, as well as provides references to other examples. The final section, Notes, may be the most useful, since it describes details not normally found in published experimental procedures. Notes often provide information about alternative methods which do *not* work, important precautions to take, commonly encountered problems, and numerous other useful hints and comments. Reference lists generally are quite complete and up to date.

The editor has assembled an interesting collection of synthetic methods for preparing peptidomimetics. In the Preface, he lays out a clear organization for the book: 6 chapters on amino acid synthesis, then 10 chapters on peptide backbone replacement, 5 chapters on peptide isosteres, 3 chapters on peptide prodrugs, and finally 5 chapters on transition-state mimics. Apparently, the publisher then scrambled the chapters—the ones on amino acid synthesis, for example, are Chapters 2, 11, 18, 19, 27, and 28. The chapter shuffling is at least partially ameliorated by the inclusion of a sort of structural table of contents, showing a few key structures or reactions for each chapter.

This book will clearly be of value to those who are interested in synthesizing nonpeptidic analogues of small peptide ligands. The subject index (10 pages) is adequate.

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