

## Book Reviews\*

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**Solid-Phase Synthesis. A Practical Guide.** Edited by S. A. Kates (Consensus Pharmaceuticals, Inc.) and F. Albericio (University of Barcelona, Spain). Marcel Dekker, Inc., New York, NY. 2000. xx + 826 pp. 14.5 × 22.5 cm. \$250.00. ISBN 0-8247-0359-6.

The literature on combinatorial chemistry expands rapidly in all directions, like the universe, and even experts struggle to keep up. Critical reviews on special topics, like this volume, have particular value in helping us to cope. Following a forward by R. B. Merrifield and an introduction by Lewis Cantley, one finds 20 chapters by 36 authors active in the work described who review various aspects of the solid-phase synthesis of combinatorial libraries, mostly of peptides, oligonucleotides, oligosaccharides, and related molecules. Each chapter bears references to the original literature and in some particularly useful cases gives critically chosen practical recipes. Some inevitable redundancies are observed, but by and large the chapters flow smoothly, are well illustrated on good paper, and are remarkably free from typos and other mistakes. The hardcover appears durable, but the review copy proved unstable for airline reading. The chapters cover solid supports, strategy in solid-phase peptide synthesis, protecting groups, preparation of small peptides, coupling methods for amide and ester bond formation, homodetic cyclic peptides, treatment of the disulfide problem, convergent approaches to native peptides and proteins, glyco-, phospho-, and sulfopeptides, oligonucleotides, oligonucleo-

tide-peptide conjugates and nucleopeptides, peptide nucleic acids, oligosaccharides, heterocyclic compounds from amino acids and linear peptides, pseudopeptides and oligomeric peptide backbone mimics, instrumentation, purification, analysis, and chromatography. The references, remarkably, are up to 1998, and the chapters range from 10 to 77 pages each.

There is comparatively little information on small, drug-like molecules or on natural products, but the book nicely complements Bunin's work on these materials and may be especially important to those exploiting genomic and proteomic advances.

This utilitarian volume will appeal mainly to active practitioners. Helpful cartoons illustrate particular points. Still, there is no coverage of some contemporary topics such as capture resins, resin-bound reagents, or informatics. The book is rather pricey for individuals to own, but your library should have a copy for you to consult. Natural products chemists will benefit less from the availability of this volume than those who specialize in biochemical informational macromolecules.

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