

Book Reviews

Ketenes. Thomas T. Tidwell. John Wiley & Sons, Inc., New York. 1995. xv + 665 pp. 16.5 × 24.5 cm. ISBN 0-471-57580-1. \$69.95.

Professor Thomas Tidwell's book *Ketenes* provides an up-to-date introduction to all facets of ketene chemistry. From his opening sentence describing the very first characterized ketene until the most recent utilization of ketene chemistry in asymmetric synthesis, Tidwell attempts to present the chemistry of ketenes in a very comprehensive and objective manner.

The book is divided into five chapters, each being subdivided accordingly. Chapter 1 briefly describes the molecular structure, bonding, and thermochemistry of a number of ketenes. Chapter 2 focuses on the NMR, IR, and mass spectrometric properties of an assortment of ketenes and also depicts tables of pertinent spectroscopic data. Chapter 3 describes many of the synthetic methods used to prepare ketenes including acyl chlorides, esters, α -halocarboxylic acid derivatives, and diazo ketones as well as other substrates which afford ketenes through the use of photolysis, thermolysis, and metal complexes. Seventy-five percent of the book's contents can be found in chapters 4 and 5, which are most informative with respect to mechanistic and synthetic organic chemistry. The fourth chapter describes in detail the types of ketenes which are known, ranging from alkyl-, alkenyl-, and alkynylketenes, to the more elaborately substituted ketenes containing the elements of silicon, germanium, tin, phosphorus, arsenic, sulfur, and boron, along with several tables depicting their methods of preparation. Chapter 5 focuses on the wide diversity of reactions to which ketenes are susceptible. Professor Tidwell's background in physical organic chemistry is manifested throughout the book which places a strong emphasis on theoretical and mechanistic arguments used to rationalize reaction pathways for various identified ketenes. This book has over 2500 references distributed at the end of each chapter and offers something to almost every discipline of organic chemistry. Its low cost should make it attractive as an excellent source of knowledge of ketene chemistry for both the academic and industrial environments.

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Books of Interest

Lange's Handbook of Chemistry. Fourteenth Edition. By John A. Dean. McGraw Hill, New York. 1992. xv + 1411 pp. 19.5 × 24 cm. ISBN 0-07-016194-1. \$29.95.

Alzheimer's and Parkinson's Diseases. Recent Developments. Volume 44. Edited by Israel Hanin, Mitsuo Yoshida, and Abraham Fisher. Plenum Publishing Corp., New York. 1995. xx + 724 pp. 17.5 × 25.5 cm. ISBN 0-306-45004-6. \$149.50.

Modern Countercurrent Chromatography. ACS Symposium Series 593. Edited by Walter D. Conway and Richard J. Petroski. American Chemical Society, Washington, DC. 1995. x + 238 pp. 15 × 23 cm. ISBN 0-8412-3167-2. \$69.95.

Drug Stability. Principles and Practices. Second Edition, Revised and Expanded. Volume 68. By Jens T. Carstensen. Marcel Dekker, Inc., New York. 1995. vii + 601 pp. 16 × 23 cm. ISBN 0-8247-9635-7. \$175.00.

Yearbook of Asymmetric Synthesis – 1991. Edited by Khurshid Zaman, Atta-Ur-Rahman, and Saleh Shekhani. Kluwer Academic Publishers Group, The Netherlands. 1995. xvii + 216 pp. 16.5 × 24 cm. ISBN 0-7923-3356-X. \$147.00.

PCR Applications in Pathology. Principles and Practice. Edited by David S. Latchman. Oxford University Press, New York. 1995. xiv + 269 pp. 16 × 23.5 cm. ISBN 0-19-854835-4. \$53.00.

Good Laboratory Practice Regulations. Second Edition, Revised and Expanded. Volume 69. Edited by Sandy Weinberg. Marcel Dekker, Inc., New York. 1995. x + 294 pp. 16 × 23 cm. ISBN 0-8247-9377-3. \$125.00.

Applied Therapeutics: The Clinical Use of Drugs. Sixth Edition. Edited by Lloyd Yee Young and Mary Anne Koda-Kimble. Applied Therapeutics, Inc., Vancouver, WA. 1995. xvi + 2273 pp. 22 × 28 cm. ISBN 0-915486-24-7. \$127.00.

Body Composition Techniques in Health and Disease (Society for the Study of Human Biology Symposium 36). Edited by P. S. W. Davies and T. J. Cole. Cambridge University Press, New York. 1995. x + 282 pp. 15.5 × 23.5 cm. ISBN 0-521-46179-0. \$54.95.

Particle-Induced X-Ray Emission Spectrometry (PIXE). Volume 133. Edited by Sven A. E. Johansson, John L. Campbell, and Klas G. Malmqvist. John Wiley & Sons, Inc., New York. 1995. xxiii + 451 pp. 16 × 23.5 cm. ISBN 0-471-58944-6. \$79.95.

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Trace Element Medicine and Chelation Therapy. By David M. Taylor and David R. Williams. The Royal Society of Chemistry, Cambridge, U.K. 1995. 135 pp. 14 × 21.5 cm. ISBN 0-85404-503-1. £15.50.

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