

Recent Reviews. 57

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Reviews are listed in order of appearance in the sources indicated. In multidisciplinary review journals, only those reviews which fall within the scope of this Journal are included. Sources are listed alphabetically in three categories: regularly issued review journals and series volumes, contributed volumes, and other monographs. Titles are numbered serially, and these numbers are used for reference in the index.

Major English-language sources of critical reviews are covered. Encyclopedic treatises, annual surveys such as *Specialist Periodical Reports*, and compilations of symposia proceedings are omitted.

This installment of Recent Reviews covers principally the early part of the 2000 literature. Previous installment: *J. Org. Chem.* **2000**, 65(7), 2267-76.

Supporting Information Available: A file containing this Recent Review compilation in Microsoft Word and the data in rtf format is available free of charge via the Internet at <http://pubs.acs.org>.

Regularly Issued Journals and Series Volumes

Accounts of Chemical Research

1. Rowan, A. E.; Elemans, J. A. A. W.; Nolte, R. J. M. Molecular and Supramolecular Objects from Glycoluril. **1999**, 32(12), 995-1006.
2. Driess, M. Multiple-Shell Clusters of Alkali Metal-Rich Phosphanides and Arsanides. **1999**, 32(12), 1017-25.
3. Gellman, A. J. Transition States for Surface-Catalyzed Chemistry. **2000**, 33(1), 19-26.
4. Mori, K. Organic Synthesis and Chemical Ecology. **2000**, 33(2), 102-10.
5. Rosenthal, U.; Pellny, P.-M.; Kirchbauer, F. G.; Burlakov, V. V. What do Titano- and Zirconocenes do with Diynes and Polyynes? **2000**, 33(2), 119-29.
6. Enders, D.; Wortmann, L.; Peters, R. Recovery of Carbonyl Compounds from *N,N*-Dialkylhydrazones. **2000**, 33(3), 157-69.
7. Adams, R. D. Catalytic Macrocyclizations of Thietanes and Thiiranes by Metal Carbonyl Complexes. **2000**, 33(3), 171-8.
8. Wendeborn, S.; De Mesmaeker, A.; Brill, W. K. D.; Berteina, S. Synthesis of Diverse and Complex Molecules on the Solid Phase. **2000**, 33(4), 215-24.
9. Murahashi, S.-I.; Takaya, H. Low-Valent Ruthenium and Iridium Hydride Complexes as Alternatives to Lewis Acid and Base Catalysts. **2000**, 33(4), 225-33.
10. Mehta, G.; Uma, R. Stereoelectronic Control in Diels-Alder Reaction of Dissymmetric

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11. Amatore, C.; Jutand, A. Anionic Pd(0) and Pd(II) Intermediates in Palladium-Catalyzed Heck and Cross-Coupling Reactions. **2000**, 33(5), 314-21.

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12. Eberson, L. Problems and Prospects of the Concerted Dissociative Electron Transfer Mechanism. **1999**, 53(10), 751-64.

Advances in Heterocyclic Chemistry

13. Pevzner, M. S. Aromatic N-Haloazoles. **1999**, 75, 1-77.

14. El Ashry, E. S. H.; El Kilany, Y.; Rashed, N.; Assafir, H. Dimroth Rearrangement: Translocation of Heteroatoms in Heterocyclic Rings and its Role in the Ring Transformations of Heterocycles. **1999**, 75, 79-167.

15. Kolar, P.; Tisler, M. Recent Advances in the Chemistry of Pyridazines. **1999**, 75, 167-241.

16. Shaban, M. A. E.; Morgaan, A. E. A. The Chemistry of 1,2,4-Triazolopyrimidines II: 1,2,4-Triazolo[4,3-c] Pyrimidines. **1999**, 75, 243-81.

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17. Twamley, B.; Haubrich, S. T.; Power, P. P. Element Derivatives of Sterically Encumbering Terphenyl Ligands. **1999**, 44, 1-65.

Aldrichimica Acta

18. Phillips, A. J.; Abell, A. D. Ring-Closing Metathesis of Nitrogen-Containing Compounds: Applications to Heterocycles, Alkaloids, and Peptidomimetics. **1999**, 32(3), 75-89.

19. Sibi, M. P. Are Two Phenyls Better than One? Synthesis and Applications of (R)-4-Diphenylmethyl-2-oxazolidinone. **1999**, 32(3), 93-103.

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20. Gregory, R. J. H. Cyanohydrins in Nature and the Laboratory: Biology, Preparations, and Synthetic Applications. **1999**, 99(12), 3649-82.

21. de Meijere, A.; Kozhushkov, S. I. The Chemistry of Highly Strained Oligospirocyclopropane Systems. **2000**, 100(1), 93-142.

22. Levin, M. D.; Kaszynski, P.; Michl, J. Bicyclo[1.1.1]pentanes, [n]Staffanes, [1.1.1]Propellanes, and Tricyclo[2.1.0.0^{2,5}]pentanes. **2000**, 100(1), 169-234.

23. Niu, S.; Hall, M. B. Theoretical Studies on Reactions of Transition-Metal Complexes. **2000**, 100(2), 353-405.

24. Rohmer, M.-M.; Benard, M.; Poblet, J.-M. Structure, Reactivity, and Growth Pathways of Metallocarbohedrenes M₈C₁₂ and Transition Metal/Carbon Clusters and Nanocrystals: A Challenge to Computational Chemistry. **2000**, 100(2), 495-542.

25. Tanaka, K.; Toda, F. Solvent-Free Organic Synthesis. **2000**, 100(3), 1025-74.

26. Rubin, M. B.; Gleiter, R. The Chemistry of Vicinal Polycarbonyl Compounds. **2000**, *100*(3), 1121-64.
27. Butenschoen, H. Cyclopentadienylmetal Complexes Bearing Pendant Phosphorus, Arsenic, and Sulfur Ligands. **2000**, *100*(4), 1527-64.
28. Yokoyama, Y. Fulgides for Memories and Switches. **2000**, *100*(5), 1717-39.
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31. Siebert, W.; Gunale, A. Compounds Containing a Planar-Tetracoordinate Carbon Atom as Analogs of Planar Methane. **1999**, *28*(6), 367-71.
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34. McDonald, F. E. Alkynol Endo-Cycloisomerizations and Conceptually Related Transformations. **1999**, *5*(11), 3103-6.
35. Pagenkopf, B. L.; Carreira, E. M. Transition Metal Fluoride Complexes in Asymmetric Catalysis. **1999**, *5*(12), 3437-42.
36. Seel, C.; Vogtle, F. Templates, "Wheeled Reagents", and a New Route to Rotaxanes by Anion Complexation: The Trapping Method. **2000**, *6*(1), 21-4.
37. Abbenhuis, H. C. L. Advances in Homogeneous and Heterogeneous Catalysis with Metal-containing Silsesquioxanes. **2000**, *6*(1), 25-32.

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38. Ward, M. D. Motors in Miniature. **2000**, (1), 22-6.
39. Hepworth, D. Solving a Synthetic Puzzle. **2000**, (2), 59-65.

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41. O'Driscoll, C. Catalysis Gone Crackers. **1999**, *35*(10), 22.
42. Kelly, P.; Loza, M. A Special Bond. **1999**, *35*(11), 26-8.
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45. Weibel, D.; Yamamoto, Y. Ruthenium-Catalyzed Cyclization of Dienylalkynes *via*

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47. Burgess, K.; Feng, Y. Syntheses and Conformational Analyses of Peptidomimetics Containing Sugar Amino Acids. **1997**, *10*(14), 1054-7.

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51. Caulton, K. G. Acetaldehyde Hydration by Zinc-Hydroxo Complexes: Coordination Number Expansion During Catalysis; Methylation of Zinc Bound Thiolates: A Model for Cobalamine Independent Methionine Synthase. **1999**, *12*(12), 890-94.

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61. Kellogg, R. M. Molecular-Sieve Catalysts for the Selective Oxidation of Linear Alkanes by Molecular Oxygen. **2000**, *13*(1), 33-5.

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- 82.** Bolvig, S.; Hansen, P. E. Isotope Effects on Chemical Shifts as an Analytical Tool in Structural Studies of Intramolecular Hydrogen Bonded Compounds. **2000**, 4(1), 19-54.

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- 83.** Fodor, K.; Kolmschot, S. G. A.; Sheldon, R. A. Heterogeneous Enantioselective Catalysis: State of the Art. **1999**, 4(6), 497-511.
- 84.** Shibasaki, M. Multifunctional Asymmetric Catalysis. **1999**, 4(6), 513-27.
- 85.** Sibi, M. P.; Liu, M. Stereoselective Conjugate Additions to Enoates. **1999**, 4(6), 575-90.
- 86.** Soai, K. Rational Design of Chiral Catalysis for the Enantioselective Addition Reaction of Dialkylzincs. **1999**, 4(6), 591-8.
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- 88.** Tsukube, H.; Shinoda, S. Lanthanide Complexes as Smart CD Probes for Chirality Sensing of Biological Substrates. **2000**, 5(1), 13-22.

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- 89.** Abele, S.; Seebach, D. Preparation of Achiral and of Enantiopure Geminally Disubstituted β -Amino Acids for β -Peptide Synthesis. **2000**, (1), 1-15.
- 90.** Aumann, R. 1-Metalla-1,3,5-hexatrienes and Related Compounds. **2000**, (1), 17-31.
- 91.** Ramon, D. J.; Yus, M. New Methodologies Based on Arene-Catalyzed Lithiation Reactions and Their Application to Synthetic Organic Chemistry. **2000**, (2), 225-37.
- 92.** König, B. Changing the Reactivity of Ene-diyne by Metal-Ion Coordination. **2000**, (3), 381-5.
- 93.** Benaglia, M.; Cinquini, M.; Cozzi, F. The S-Thioester Enolate/Imine Condensation: A Shortcut to β -Lactams. **2000**, (4), 563-72.

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- 94.** Prager, R. H.; Williams, C. M. Base-Catalyzed Rearrangements of 5-Oxodihydroisoxazoles. **1999**, 51(12), 3013-30.
- 95.** Rebek, J., Jr. Heterocycles in Encapsulation and Assembly. **2000**, 52(1), 493-504.
- 96.** Bouaziz, Z.; Nebois, P.; Poumaroux, A.; Fillion, H. Carbazole-1,4-diones: Syntheses and Properties. **2000**, 52(2), 977-1000.
- 97.** Argade, N. P.; Balasubramanian, V. Ring Closure Reactions of Suitably ortho-Substituted Maleanilic Acids: an Avenue for Heterocycles. **2000**, 53(2), 475-88.

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- 98.** Haas, A. Perfluoroorganoelement Chemistry Anticipating the 21st Century. **1999**, 100(1-2), 21-34.

- 99.** Brisdon, A. K.; Banger, K. K. Fluorovinyl Organometallic Compounds - an Historical Review and Some Recent Advances. **1999**, *100*(1-2), 35-43.
- 100.** Coe, P. L. Polyfluorovinyl Lithium Reagents and Their Use in Synthesis. **1999**, *100*(1-2), 45-52.
- 101.** Chambers, R. D.; Hutchinson, J.; Sandford, G. Recent Studies at Durham on Direct Fluorination. **1999**, *100*(1-2), 63-73.
- 102.** Hope, E. G.; Stuart, A. M. Fluorous Biphase Catalysis. **1999**, *100*(1-2), 75-83.
- 103.** Ando, A.; Kumadaki, I. Progress on the Syntheses of Fluorine Analogs of Natural Porphyrins Potentially Useful for the Diagnosis and Therapy of Certain Cancers. **1999**, *100*(1-2), 135-46.
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- 105.** Stone, F. G. A. Fluorocarbon Metal Compounds. Role Models in Organotransition Metal Chemistry. **1999**, *100*(1-2), 227-34.
- 106.** Adams, D. J.; Clark, J. H.; Heath, P. A.; Hansen, L. B.; Sanders, V. C.; Tavener, S. J. Novel Synthetic Methodologies for Fluorination and Perfluoroalkylation. **2000**, *101*(2), 187-91.
- 107.** Portella, C.; Brigaud, T.; Lefebvre, O.; Plantier-Royon, R. Convergent Synthesis of Fluoro and Gem-Difluoro Compounds Using (Trifluoromethyl)trimethylsilane. **2000**, *101*(2), 193-8.
- 108.** Ignat'ev, N.; Sartori, P. Electrochemical Fluorination of Organo-Element Compounds. Synthesis of New Perfluorinated Substances. **2000**, *101*(2), 203-7.
- 109.** Bhattacharyya, P.; Croxtall, B.; Fawcett, J.; Fawcett, J.; Gudmunsen, D.; Hope, E. G.; Kemmitt, R. D. W.; Paige, D. R.; Russell, D. R.; Stuart, A. M.; Wood, D. R. W. Phosphorus(III) Ligands in Fluorous Biphase Catalysis. **2000**, *101*(2), 247-55.
- 110.** Boltalina, O. V. Fluorination of Fullerenes and Their Derivatives. **2000**, *101*(2), 273-8.

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- 112.** Brimble, M. A. Synthetic Studies Towards Natural Products Containing bis-Spiroacetals. **1999**, *36*(6), 1373-89.
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- 114.** Mulzer, J.; Martin, H. J.; Berger, M. Progress in the Synthesis of Chiral Heterocyclic Natural Products: Epothilone B and Tartrolon B. **1999**, *36*(6), 1421-36.
- 115.** Pfaltz, A. Chiral Heterocycles as Ligands in Asymmetric Catalysis. **1999**, *36*(6), 1437-51.
- 116.** Green, L.; Chauder, B.; Snieckus, V. The Directed Ortho Metalation Cross-Coupling Symbiosis in Heteroaromatic Synthesis. **1999**, *36*(6), 1453-68.
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- 123.** Ramsden, C. A. Studies Using Hypervalent Reagents of Te, I and Xe: A Heterocyclic Betaine Saga. **1999**, 36(6), 1573-9.
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- 130.** Lawrence, N. J.; Drew, M. D.; Bushell, S. M. Polymethylhydrosiloxane: A Versatile Reducing Agent for Organic Synthesis. **1999**, (23), 3381-91.
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- 134.** Adams, J. P. Imines, Enamines and Oximes. **2000**, (2), 125-39.

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- 138.** Fraga, B. M. Natural Sesquiterpenoids. **1999**, 16(6), 711-30.
- 139.** Faulkner, D. J. Highlights of Marine Natural Products Chemistry (1972-1999). **2000**, 17(1), 1-6.
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- 141.** Lewis, J. R. Amaryllidaceae, Muscarine, Imidazole, Oxazole, Thiazole and Peptide Alkaloids, Other Miscellaneous Alkaloids. **2000**, 17(1), 57-84.

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