"reagent based" (volumes on silicon, boron, lithium and palladium reagents) or "substrate based" (two volumes on oxidation, and one on hydrogenation). The latter is more useful to the synthetic chemist, but is much more difficult to do well, requiring the acquisition of data from a very broad spectrum of the chemical literature. The value of individual volumes may be considerable, but the prices are high. This may eventually emerge to be a substantial and valuable data base for organic synthesis, but as an apparently random and costly collection of specialist monographs it is difficult to recommend that libraries should subscribe to it at present.

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Advances in Boron and the Boranes; edited by J.F. Liebman, A. Greenberg, and R.E. Williams, VCH Publishers, Inc., New York, 1988, xx + 547 pages, £68.00, DM195, ISBN 0-89573-272-6.

This book forms Volume 5 of the series of monographs entitled "Molecular Structure and Energetics", and is dedicated to A.B. Burg. It comprises a set of essays which review aspects of boron chemistry. The author include some of the most active practitioners in the field; they are: A. Arafat, J. Baer, S.H. Bauer, R.A. Beaudet, A.B. Burg, J.S. Chickos, D.E. Coons, E.W. Corcoran, T.P. Fehlner, L.D. Field, D.F. Gaines, R.N. Grimes, M.F. Hawthorne, J.A. Heppert, Z.S. Herman, S. Heřmánek, N.S. Hosmane, J.C. Huffman, G. Kodama, J.F. Liebman, W.N. Lipscomb, J.A. Maguire, D.S. Matteson, J.A. Morrison, K. Niedenzu, G.A. Olah, T. Onak, L. Pauling, J. Plešek, G.K.S. Prakash, S.G. Shore, A.R. Siedle, J. Simons, L.G. Sneddon, B.F. Spielvogel, B. Štibr, L.J. Todd, J.R. Wermer, and R.E. Williams. The first chapter is by the dedicatee and is entitled "How It All Comes Together: The Mutual Impact of Such Different Fields of Chemistry as Boron Hydrides and Fluorocarbon Phosphines".

For readers of this Journal, the chapters which will perhaps have the greatest interest, because of their subject matter, are the following: "Syntheses and Reactions of 9- and 10-Atom Carboranes and Heteroboranes", by B.Š., J.P., and S.H.; "Palladium- and Platinum-Promoted Reactions of Polyhedral Boranes and Carboranes", by E.W.C. and L.G.S.; "Some Chemistry of the Small Carboranes", by T.O; "The Polyborane-Carborane-Carbocation Analogy Extended: New B–H–C Bridge Hydrogen-containing Cations, C–Me–$C_2BH_7^+$ (cf. *arachno*-$B_3H_8^-$), *C,C*-$(Me)_2CBH_4^+$ (cf. *nido*-B_2H_6), and B–Me–*C,C'*-$(t\text{-}Bu)_2C_2B$ (cf. $C_3H_3^+$) Confirmed as Carboranes", by R.E.W., G.K.S.P., L.D.F., and G.A.O.; "Search for Cluster Catalysis with Metallacarboranes", by M.F.H.; "Synthetic Strategies in Boron Cage Chemistry", by R.N.G.; "Recent Advances in the Chemistry of Main Group Heterocarboranes", by N.S.H. and J.A.M.; "Asymmetric Synthesis with Boronic Esters", by D.S.M.; "Organometallic Chemistry of Strong Acids: From Boron to Carbon", by A.R.S.; and "The Molecular Structures of Boranes and Carboranes", by R.A.B.

The volume is attractively produced and concludes with a subject index.

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