Book review

Stereoselective Reactions of Metal-activated Molecules

H. Werner and J. Sundermeyer (eds) Vieweg, Braunschweig/Weisbaden, 1995 235 pages. £60.00 ISBN 3-528-06664-4

The proceedings of the second symposium held in Würzburg in September 1994 on Stereoselective Reactions of Metal-activated Molecules, which focused on stereoselective coupling and cleavage of covalent bonds by metal complexes and metalloenzymes, are presented as a selective overview of this very important and vibrant area of chemistry. The search for complete selectivity in reactions is the most important challenge facing chemistry today, and metal activation represents a significant contribution towards achieving this goal.

The book is divided into four parts dealing with C–O Bond Formation (50 pages; contributions by Barton, Jacobsen, Veldink, Schreier, Adam and Schulz), C–C and C–H Bond Formation (122 pages; contributions by Gladysz, Brunner, Berkessel, Effenberger, Floriani, Milstein, Werner, Taube, Kundig, Bringmann, Sundermeyer, Akita, Krause, Zenneck, Rieger and Griesbeck), C–P and C–S Bond Formation (34 pages; contributions by Mathey, Malisch, Matt, Schenk and Weigand), and Spectroscopical and Theoretical Studies on Metal–Ligand Interactions (28 pages; contributions by Frenking, Kiefer and Bertagnolli).

The compilation benefits from the interdisciplinary mix

of chemistry, biological chemistry, and physical and theoretical chemistry. The work will be a very useful addition to undergraduate and postgraduate chemistry libraries, serving to stimulate interest in the crossdisciplinary nature of metallo-organic chemistry; however, the selectivity of the overview inherent in any Proceedings book makes it very unlikely that it will become a part of personal libraries. Nonetheless, the contributions are generally well written and easy to read with an interesting mixture of review material intermingled with recent results and experimental procedures. There is no doubt that many of the areas covered will remain at the forefront of endeavours in chemistry for the foreseeable future. Both stoichiometric and catalytic approaches to solving the problems of reaction selectivity are described.

Overall the editors are to be highly commended for drawing together and organizing constructively an intriguing set of topics.

STEPHEN G. DAVIES University of Oxford, UK