

Book review

Topics in Current Chemistry, Volume 146, Physical Organic Chemistry, Contributions by G. Boche, G. Kaupp, E. Masimov, M. Rabinovitz and B. Zaslavsky, Springer-Verlag, 1988, 209 pages, DM 148, ISBN 3-540-18541-0.

The first chapter of this volume is entitled “*Rearrangements of Carbanions*”, though the authors note that these carbanions are in fact almost always organometallic compounds. After a brief introduction, these rearrangements are reviewed with special reference to the literature of the last ten years. The first topic considered is rearrangements involving three-membered rings, including allyl anion rearrangements. Electron transfer reactions are also specifically considered. Section three discusses rearrangements involving four-membered rings and section four details the cyclisations of 5-hexenyl anions.

Section five will be of considerable interest to organometallic chemists, dealing with configurational isomerisation of α -substituted vinylolithium compounds. The polymorphism of organolithium reagents was considered in section eight, whilst section nine deals with rearrangements of and within alkylolithium aggregates. It is clear from this article that our understanding of the effects of the gegenion and solvent on the reactions of carbanions are really still at a rather elementary stage, and this will clearly be a growth area for research in the next few years.

The next Chapter of this volume reviews complex eliminations, in particular eliminations with rearrangements, and Chapter three considers polycyclic anions. Again many of these species are really organometallic compounds, and there is considerable discussion as to the aromaticity or otherwise of these systems. The final chapter discusses methods of analysis of the relative hydrophobicity of biological solutes.

This volume has been produced to a high standard, and is well illustrated, as readers have come to expect from this series. The chapters are well referenced, into 1987. There is no index, but this is not a serious disadvantage since the chapter contents are given in considerable detail. This is an expensive book, but a good one. Although it is not very likely to appeal to many individual purchasers, this is an excellent series and should find a place on the shelf of all serious chemistry libraries.