

Book reviews

Advances in Physical Organic Chemistry, Vol. 15. Editors, V. Gold and D. Bethell. Academic Press, London, New York and San Francisco, 1977, viii + 344 pages; £16.40; U.S. \$ 32.10.

This addition to this excellent series of volumes contains one chapter of direct interest to organometallic chemists, viz. that on Ion-Pairing Effects in Carbanion Reactions (113 pages). In that Chapter, T.E. Hogen-Esch discusses, with the authority of one who has made substantial original contributions in the field, ion pairing in carbanion solutions, ion pairing in carbanion equilibria, the effects of carbanion pair structure on reaction rates, and ion-pairing effects on the stereochemistry of carbanions. Chapters which will be of considerable general background interest to those concerned with organometallic reaction mechanisms are those by J. Hine on the Principle of Least Nuclear Motion (61 pages) and by A. Brändström on Principles of Phase-Transfer Catalysis by Quaternary Ammonium Salts (64 pages). Hine's chapter is an admirably clear and timely account of the concept which he has done so much to establish and develop, and which so often provides a simple acceptable explanation of seemingly anomalous behaviour.

The fourth chapter (88 pages) deals with Topological Phenomena in Organic Solid-State Chemistry, and is by J.M. Thomas, S.E. Morsi and J.P. Desvergne; as the title suggests it is concerned predominantly with organic systems, but the solid state polymerization of dimeric sulphur nitride to polymeric sulphur nitride is also considered.

The editors continue to maintain the high standard of this series. The book is printed in the conventional way, and so represents excellent value for money in terms of today's prices. It is recommended without reservation.

*School of Molecular Sciences,
University of Sussex,
Brighton, BN1 9QJ, (Great Britain)*

COLIN EABORN