Book Review

Macromolecular Chemistry—3

International Union of Pure and Applied Chemistry; Butterworths: London, 1967. 6½ in × 10 in. *v*+277 *pp.* 90*s*

THIS book comprises the 16 General Lectures delivered at the IUPAC Symposium on Macromolecular Chemistry held in Tokyo and Kyoto in September 1966. It is shorter in length than the previous volume in this series (reviewed in *Polymer*, 1967, **8**, 479) and consequently appears to cover a rather narrower range of topics. This impression is reinforced by the specialized nature of some of the contributions, which leads the reviewer to wonder whether the term 'general lecture' has any universally accepted meaning. Using the percentage of an author's references to his own publications as a crude index of the degree of specialization, one finds, for the individual lectures, values ranging from 0 to 67, but for more than half of them the index is greater than 20. While this is not necessarily a reflection on the authors, it suggests that the organizing committee would have been better advised to arrange for the presentation of a greater number of broadly based and critical reviews of the kind that were such a valuable feature of the 1965 Prague Symposium.

Fortunately some of the more generally oriented contributions in the present collection can be read with profit and enjoyment by any polymer chemist; such are those on Initiation and Propagation Processes (C. H. BAMFORD), Matrix Reactions (W. KERN and H. KÄMMERER), Polymerizable Lactams (P. SCHLACK), Crystallized Polymer Dispersion Behaviour (M. TAKAYANAGI) and Photo-induced Polymerization (P. WEISS).

Even where the main appeal is to a limited audience, there are a number of ideas with a high transfer potential to be found in the remaining lectures. The topics and authors (in alphabetical order) are as follows: Configurational sequence studies by n.m.r. (F. A. BOVEY); Recent research on polymer structure (M. L. HUGGINS); Polymerization of chemically activated monomers (V. A. KABANOV); Polyvinyl alcohol synthesis (S. MURAHASHI); Catalytic action of large molecules containing imidazole groups (C. G. OVERBERGER *et al.*); Mechanism of stereospecific polymerization of alpha-olefins (I. PASQUON); Physicochemical properties of macromolecular chains in dilute solution (C. SADRON); Relative stabilities of polyamino acid helices (H. A. SCHERAGA *et al.*); Polymerization of aryldiazoalkanes (G. SMETS *et al.*); Dielectric dispersion in solutions of flexible polymers (W. H. STOCKMAYER); Model substances as tools in polymer science (O. WICHTERLE).

The lectures in this book have also appeared in *Pure and Applied Chemistry*, 1967, **15**, Nos. 3–4.

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