Book Review

***Developments in Polymer Photochemistry*, Vol. 3**

edited by Norman S. Allen; published by Applied Science, Barking, 1982; 353 pp.; price, £40.00

This volume is the third in a series devoted to various aspects of the effects of light on synthetic polymers, and the use of light to cause polymerization and cross-linking. The eight articles included in the present volume are concerned with a heterogeneous mix of subjects. This heterogeneity to some extent obstructs the stated aim of these development series, which is to collect papers dealing with latest trends in a specific field under a single cover and to publish rapidly. Although all the papers in this volume are concerned with photo effects, I would doubt that those interested in photo-initiated polymerization would be particularly concerned with, say, photoconduction or luminescence depolarization in synthetic polymers. This is not to criticize the individual articles, which are of a high standard, but to suggest that future volumes group together articles which have a more closely defined connection than rather a broad association of effects which are light induced. Despite this qualification, approximately half of the volume is concerned with photodegradation and the chain scission process in a variety of polymers with complete articles on poly(vinyl chloride) by Owen and polyurethanes by Osawa and a useful general review from a commercial viewpoint of stabilization of polymers against UV degradation by Hardy. There is considerable overlap between the last article and the two concerned with poly(vinyl chloride) and polyurethane. The article by Schnabel on laser flash photolysis of polymers is a useful review of this academically oriented field. The chapters by McGinniss on photo-initiated polymerization, Tazake on photo-cross-linking in polymers, and Takai and Ieda on photoconduction in polymers will be of considerable interest to technologists. The article by Soutar is particularly commended as satisfying the intentions of the series in that it reviews a field of much current activity and potential.

On balance, the book will be a useful reference volume to those with both technological and academic interests in synthetic polymers and photopolymer systems.

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