

Current Trends in Polymer Photochemistry. By Norman S. Allen, Michele Edge, Ignazio Renato Bellobono and Elena Selli. Ellis Horwood, City, Country, Year. 380pp.

This text is concerned with recent and continuing developments in the topical and expanding area of polymer photochemistry. The book was inspired by the Third International Conference on Polymer Photochemistry held in Italy in September 1993. However, it is not a compilation of the papers presented at that event but is rather a series of overviews of selected topics in the field provided by a number of research specialists, both contributors and non-contributors to the conference. The book contains 22 chapters, each dedicated to a specific topic, and is 380 pages long. As expected in such a compilation, each topic is covered in an individual style, some chapters presenting broad overviews of the topic while others are of a much more specific nature devoted more to the presentation of research results. The list of topics is as follows: the application of luminescence spectroscopy to the study of polymers, photoinitiated modifications of synthetic polymers, photoinitiation of vinyl polymerisation in aqueous media, photopolymerisable adhesives for transparent laminated glasses, photochemical crosslinking and photoinitiator properties of 2-substituted anthraquinones, photochemistry of a novel water-soluble photopolymer grafted with a thiazolium group, photoinitiation of ionic polymerisation, photochemical production of composites and membranes, laser curing of photopolymers, product control in topochemical photoreactions, light-induced grafting reactions on to poly(organoboranes), weathering relevant photo-oxidation mechanisms of styrenic polymers, photodegradable polyolefins, photodegradation of lignin, ultrafast processes in photo-irradiated polymers and additives, application of microwave methods to study the photo-activity of titanium dioxide in polymers, new trends in polymer photostabilisation, photoconductivity of carbazole-containing polymers sensitised by electron acceptors, interactions of light with conducting polymers, charge migration and recombination in columnar stacks of mesomorphic phthalocyanines, pulse radiolysis of polyethylene in the presence of acceptors and third order nonlinear optical processes in conjugated polymers. A reader seeking a comprehensive treatment of polymer photochemistry will be disappointed as this is not the aim of this particular book. However, the range of topics, while necessarily selective, is extensive and presents a balanced view of physicochemical and technological developments in this important subject area. This will ensure that the text is widely read by specialists in the field and by polymer chemists seeking an insight into current research directions in the area.

Robert M. Christie.