

Book Reviews

***Analytical Pyrolysis of Natural Organic Polymers*; S.C. Moldoveanu; Elsevier, Amsterdam, 1998, 508 pages, ISBN 0-444-82203-8, US\$284.50**

Analytical Pyrolysis is one of the many important tools utilised for the study of natural organic polymers. By principle, the process characterises a material by chemical degradation reactions, which are induced by thermal energy, hence indicating great importance to the analyst.

This scientifically sound publication, describes in three sections the methodology of analytical pyrolysis, the results of pyrolysis for a variety of biopolymers, and several practical applications of analytical pyrolysis on natural organic polymers and their composite materials. The book includes a number of topics ranging from those related to biochemistry, to some from physics and covering problems such as mechanisms in organic chemistry or instrumentation in analytical chemistry.

This great compliment of scientific literature, is up-to-date and well presented. Aiding the literature, are useful key-points, edifying tables and diagrams, as well as appropriate references given from each chapter.

In general, the book presents analytical pyrolysis as a uniform subject and not as a conglomerate of scientific papers. It puts together in an organised manner a large volume of available information in this scientific field. It also provides original results which address subjects with relatively scarce information in the literature.

Overall, this book is well presented, a good length (having 508 pages), thorough, and a very readable text. A fine scientific publication.

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***Antioxidants: in Science, Technology, Medicine and Nutrition*; G. Scott; Albion Publishing, Chichester, 1997, 334 pages, ISBN 1-898563-31-4, £70.00**

Antioxidants have widespread uses in many areas of industry including food, plastics, rubber technology and pharmaceuticals. Early research was concerned with the protection of technological materials, such as rubber, from oxidative deterioration. In the 1950s there was recognition of the importance of biological antioxidants in some diseases, and of the analogies between lipid peroxidation and the mechanism of deterioration of polyunsaturated edible oils. This led to a major increase in research in the life sciences, and into free radical peroxidation in vivo. Antioxidant materials can deactivate the harmful effects of free radicals in the human body, providing invaluable protection against cell and tissue damage.

Antioxidants: in Science, Technology, Medicine and Nutrition collates information produced in quite distinct areas of science and technology, and presents an integrated approach to the subject based on mechanisms of peroxidation and antioxidant action which are the focus of this book. Successive chapters cover peroxidation in chemistry and chemical technology, its biological effects, and the role of the various types of antioxidants in vivo, and in combating and preventing disease.

This book provides a comprehensive, well-written text source of information on all aspects of antioxidants. It is highly recommended, not only for scientists in the chemical, biochemical, medical and pharmaceutical fields, but also as an invaluable reference for workers in the polymers, oil, food science and allied industries.

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