

used as photostabilisers for commercial polymers. The latter chapter provides a useful review of the currently available evidence for the mode of action of these valuable stabilisers, and concludes that the derived nitroxyl radicals are the principal stabilising entity, although these play a multifunctional role

An overall impression of this book is that it is an improvement on the previous volume in the series, and this is largely because of the higher measure of continuity of the topics dealt with. Thus the book will prove very useful to anyone concerned with polymer photodegradation and photostabilisation, and can be recommended unreservedly for the library shelf. However, the book is unlikely to attract many private buyers because of the high price

J. GRIFFITHS

Fats and Oils: Chemistry and Technology. Edited by R. J. Hamilton and A. Bhatl. Applied Science Publishers Ltd, London 1980. ISBN 0-85334-915-0. Price £24.00

This book is based on a symposium on recent advances in the chemistry and technology of fats and oils, held in December 1979. As could be expected, it reflects the continuing high level of activity in technological research stimulated by changing circumstances.

Changes in attitude to the design of processing equipment, whereby saving in power consumption is given preference over capital outlay, are described, covering mechanical pressing, cooking, milling and extracting. Similarly signs of change in attitude towards the processes themselves are indicated, particularly with respect to the potential value of 'physical' refining.

The constant demands for new modifications of existing natural products are illustrated by the examples of the continuing search for cocoa butter substitutes and extenders and of the ingenious *in vivo* transformation of lamb, beef and bovine milk fats to forms unsaturated to a fashionably high degree. Contrarywise, the spur to utilise to best advantage a raw material suddenly appearing on the market in greatly enhanced quantity is demonstrated by an account of the production and utilisation of Malaysia's palm oil.

A review of problems solved and unsolved in the edible oil industry portrays the contribution of basic scientific research to technological development and the early chapters of the book reveal that outposts of activity in this field still persist.

Recent developments in analytical techniques with reference to fats and oils are outlined and a particularly useful description is given of the application of broad band NMR, in both continuous wave and pulsed forms. Brief but comprehensive accounts are given of natural oxygenated fatty acids and their kindred, the prostaglandins and thromboxanes, representing developments in the biochemistry of the lipids and a somewhat lengthy chapter on the synthesis of triglycerides shows that this time-honoured activity still thrives.

Overall this is a useful and instructive book. It is almost unblemished by error, although those few which occur could be misleading, e.g. the confusion of D- and L-forms in the midst of a commendable attempt to clarify the stereochemical representations of triglycerides. One or two chapters are anecdotal in style and lack references to provide further information for the more zealous reader, especially on points of dubious validity

J E MCKAY

Polymer Photochemistry: An International Journal. Edited by N S Allen Applied Science Publishers Ltd, London ISSN 0144-2880

The reaction to the birth of a scientific journal is often one of mixed feelings for various reasons. One of these reasons concerns the need to be selective in the purchase of journals especially in view of constant reminders of the reality of limited financial resources available.

In reviewing a new journal one looks to the aims and objectives of the editor, to the constitution of the editorial board as well as to the first issues. With regard to these three points *Polymer Photochemistry* rates highly. The editor is an authority in this subject, the editorial board has an excellent pedigree and the first issue possesses a commendable balance of topics, considered under the general mantle of polymer photochemistry. If the editor achieves the objectives he lays down for the journal in his editorial to the first issue, he will provide a long sought for avenue for both scientific and technological aspects of polymer photochemistry.

The journal, currently published quarterly, covers natural and synthetic polymeric systems and all aspects of polymerisations which are induced by electromagnetic radiation. Areas of interest include photochemical cross-linking, photografting, photocuring, photo-imaging together with the optical and luminescence properties of polymers. One of the strengths of the journal is the attention given to additives. Examples include photoinitiators, synergists, monomers, antioxidants, light stabilisers, optical brightening agents and so on. For the first issue the editor has assembled a group of strong papers. *Polymer Photochemistry* will be a valuable addition to the libraries of academic and industrial centres alike. My reaction to *Polymer Photochemistry* is one of enthusiasm. This journal deserves support. I now look forward to following its growth and development. The editor is to be congratulated on his initiative.

JAMES T GUTHRIE