

reduction in loss of food in producing countries, but also to improvement in the quality of goods shipped overseas.

It is surprising to find a chapter on general entomology which is elementary to the specialist and of limited value to the layman, but useful descriptions are given of many species which can attack stored products and breed in premises where these are stored and processed.

The sections on the prevention and control of infestation summarize those aspects of hygiene and chemical measures which are necessary to minimize insect attack. They also direct attention to physical means whereby damage can be avoided, including recent advances in preventing infestation of grain by storage at low temperatures. In reference to grain storage in airtight conditions, however, useful observations such as those of S. W. Bailey are omitted.

The book does not always go into great detail but has the advantage of an extensive bibliography on which the reader can draw for further information. Although there is, perhaps, a tendency to dwell on early work, occasionally at the expense of later developments, this publication is undoubtedly a valuable and interesting contribution to the literature in this field of study. It should find a receptive audience, not only among students of entomology, but also among specialists responsible for the inspection and treatment of produce and members of the warehousing and manufacturing trades. G. C. WILLIAMS

#### Proceedings of the 1965 Heat Transfer and Fluid Mechanics Institute

Held at the University of California, Los Angeles, California, June 21, 22, 23, 1965. Edited by Andrew F. Charwat. Pp. ix+372. (Stanford, California: Stanford University Press; London: Oxford University Press, 1965.) \$10; 80s. net.

THIS book starts off with a brief abstract of the three invited lectures, each with an adequate bibliography. These are followed by eighteen contributed papers, well illustrated but without discussion. Almost all the papers are concerned with the rather extreme conditions of heat and mass flow connected with space research and come from space research laboratories or universities working on grants from such laboratories. There are some cases, however, in which useful results are available from this work for ground engineering, particularly in the fields of viscous pipe flow, of suspensions flow through porous matrices, problems of all oscillation in boiling fluids and advanced studies in radiation from non-grey gases. The papers in these fields will be useful reference papers, the others mainly of interest in connexion with plasma parts, hypersonic facilities and very low gas pressures.

M. W. THRING

#### Inelastic Scattering of Neutrons

(Proceedings of the Symposium on Inelastic Scattering of Neutrons held at Bombay, December 15-19, 1964.) Vol. 1. Pp. 460. 199.50 schillings; 57s.; \$9.50. Vol. 2. Pp. 574. 241.50 schillings; 69s.; \$11.50. (Vienna: International Atomic Energy Agency; London: H.M.S.O., 1965.)

THESE volumes cover the proceedings of the third International Atomic Energy Agency conference in this series, the previous two being held in Vienna (1960) and Chalk River (1962). The conferences, which are concerned with the dynamical properties of solids and liquids as measured by neutron scattering, are very well organized and are therefore attended by representatives of most of the laboratories working in this field. Full texts of all the contributions are circulated to delegates before the conference and this encourages lively discussions which are also fully reported in these proceedings.

The contributions are presented under five headings, Volume 1 containing papers on "Dynamics of Solids and Magnetic Systems" and Volume 2 "Dynamics of Liquids,

Molecular Dynamics and Experimental Techniques". The first paper in each section is an invited review paper. With the exception of the paper on experimental techniques, which confines itself to work performed at the laboratory of the author, these review papers are most interesting and informative and adequately survey their respective branches of the subject. The quality of the other papers is variable. Most of the papers set quite a high standard, but here and there it is possible to detect a paper written to justify the attendance of the author at the conference. This does not, however, detract too much from the value of these volumes, which should be required reading not only for those interested in neutron scattering but also for those interested in the dynamics of the liquid and solid state. The books themselves are well produced, and in this and in the speed of production the International Atomic Energy Agency has set an example which might well be followed by other organizations. B. C. HAYWOOD

#### Introduction to Polymer Crystallization

By Allan Sharples. Pp. iv+138+18 plates. (London: Edward Arnold (Publishers), Ltd., 1966.) 32s. net, boards; 16s. net, paper.

As a class, crystalline polymers are capable of a far greater variety of practical applications even than the amorphous polymers (rubbers and organic glasses). This versatility is a direct result of the wide range of physical properties which can be obtained by varying the state of crystallization or local ordering of the long-chain molecules of which the polymer is composed. This state is a function not only of the chemical constitution of the polymer, but also of the mechanical and thermal treatments to which it is subjected. It is therefore important to learn as much as possible about the processes of crystallization which occur and the way in which they can be controlled.

*Introduction to Polymer Crystallization* gives an excellent account of the various methods which have been developed to study the morphology of crystalline polymers and the kinetics of the processes of nucleation and crystal growth. The available techniques include optical and electron microscopy, small angle and wide angle X-ray diffraction, light scattering and dilatometry. The evidence derived by these methods is presented clearly and discussed in a critical but eminently readable manner, and the directions in which further development appears most desirable are indicated.

The book is a genuine introduction in the sense that it covers the subject in a broad and balanced manner, but is not overloaded with detailed discussion. Its value is greatly enhanced by striking photographs of single crystals, spherulites, microfibrils, lamellae and other growth structures. It will be useful not only to undergraduates, for whom it is primarily intended, but also to more mature workers, who will find it informative and stimulating.

L. R. G. TRELOAR

## OBITUARIES

### Professor E. E. Turner

PROFESSOR E. E. TURNER, emeritus professor of chemistry in the University of London, died at his home in Tonbridge on September 8. He was born in London in 1893 and attended the Coopers' Company School before entering East London College (now Queen Mary College); here he came under Professor J. T. Hewitt, whom he remembered with gratitude and affection throughout his life. By the age of twenty-one he was a fellow of the Chemical Society and published his first paper, in collaboration with his student contemporary, G. M. Bennett.