ideas be developed. Although the texts published here are but a small proportion of those collected during his working life, they reveal his skill at eliciting information and also his tact and sensitivity in allowing people to say or write what they wanted and not what would have best suited him. Rejecting analysis in his final works, he concentrated on making known the views of those he studied; the present book is typical of this approach. Though one might wish for more of his own views and ideas, the work as a whole provides a mass of interesting and valuable data. It is also a tribute to Evans-Pritchard's lifelong fascination with the lives and ideas of other men and his deep respect for these in all their variety.

M. D. McLeod

Molecular sieves

Zeolite Molecular Sieves: Structure, Chemistry and Use. By Donald W. Breck. Pp. ix+771. (Wiley: New York and London, January 1974.) £18.

THERE have been several shorter monographs on particular aspects of zeolite chemistry and technology, mostly in Russian, and also several bibliographies. In 1968, 1971 and 1973 volumes have appeared embodying the papers read in three international symposia on molecular sieve zeolites. But Dr Breck's monograph is the first comprehensive text reviewing all aspacts of zeolites except their catalytic properties. A second monograph is being considered which will cover this important area. I hope this will be completed in due course in the same comprehensive pattern.

In the book under review the introductory chapter is followed by chapters on structure, mineral zeolites, synthetic zeolites, physical properties, chemical properties and reactions, ion exchange, adsorption and finally manufacture and properties of commercial sieve zeolites. A feature of the book is the amount of illustrative material presented as tables. In the field of molecular sieves progress in the basic science and in applications is rapid ar the incorporation of the most recent developments presents considerable problems. The author has nevertheless been successful in providing coverage up to about 1972. The discussions of zeolite structure, crystal chemistry, synthesis, chemical reactions and properties are particularly interesting.

One may ask whether Dr Breck's classification of zeolites will appeal to mineralogists since it produces some strange bedfellows, for example analcime, phillipsite, paulingite and yugawaralite are all given as members of the same group. Cages of linked tetrahedra of $(Si,Al)O_4$ are referred to as α–, β–, γ– . . . cages. In my opinion these cavities would be better designated as 14-hedra, 26-hedra, and so on since this conveys partial information about their nature. The chapters on adsorption and ion exchange reproduce many isotherms, although usually without the experimental points which allow one to assess the accuracy and reversibility achieved in the original researches. In the introductory chapter a brief review is given of several other materials having molecular sieve properties such as Saran charcoals and alkali metal graphites, but one of the more important types, the alkylammonium-exchanged clay minerals, receives virtually no attention.

There are various printing errors but they do not usually result in ambiguity and are small matters in a book of this compass. The author is to be congratulated on completing a monograph which will, despite its price, be indispensible to all those interested in molecular sieve science and technology, and which should become the first standard work on this subject. The format is attractive, clear and easy to read.

R. M. Barrer

Plant components

Phytochemical Methods: A Guide to Modern Techniques of Plant Analysis. By J. B. Harborne. Pp. x+278. (Chapman and Hall: London; Halsted Press, a division of Wiley: New York, 1973.) £4.80.

THE aim of the author is to provide undergraduate students and research workers with a series of proven methods of phytochemical analysis in a single volume at a reasonable cost. After a brief survey of general extraction, analytical and identification procedures, specific methods for each major class of organic constituent found in plants are considered. Much of the book (98 pages) is concerned with a comprehensive discourse of methods used for the analysis of phenolic compounds and terpenoids. The coverage of the organic acids, lipids and related compounds, nitrogen compounds and sugars, though not as extensive as the phenolics, is adequate. The macromolecules including the nucleic acids, proteins and polysaccharides are deliberately considered in less detail owing to space limitations and widespread coverage in other texts. It is unfortunate that more space could not have been allocated to this important area of research.

Each chapter contains sections on the chemistry, distribution and recommended qualitative and quantitative procedures for each component which have widespread application in research laboratories. Sufficient detail has been included to enable the inexperienced worker to attempt the methods and the practical experiments in each section should help the student gain experience with the procedures. The carefully selected references at the end of each section should aid the worker to quickly develop or modify the techniques to suit his own requirements. The author assimilates the rapidly expanding and difficult area of phytochemical methods into a well written and informative text which should be welcomed by both students and researchers.

G. Norton

Flies and humans

Flies and Disease. Vol 2: *Biology and Disease Transmission.* Bernard Greenberg. Pp. x+447. (Princeton University. Princeton, September 1973.) £4.50.

THIS second volume of *Flies and Disease* complements volume 1 which appeared in 1971.

The introductory chapter provides an historical survey of the association of flies with man throughout recorded history. This is one of the most fascinating chapters in the book, documenting both early myths and observations on the natural history of flies. A slip of paper in the mouth of a mummy "The maggots will not turn to flies within you" illustrates the Egyptians' appreciation of insect metamorphosis many centuries ago.

The second chapter deals with the life history and habits of ten common genera of synanthropic flies. There are several important omissions here (for instance, *Musca domestica*), justified on the grounds of treatment elsewhere in the literature, and the information given is occasionally rather disjointed because of the variety of interests of the original authors. The chapter ends with a discussion of the estimation of fly density (simple Lincoln index only) and dispersal: table 3 is a useful summary of the dispersal of more than 40 fly species.

Chapter 3 investigates flies as hosts of a variety of micro-organisms and describes the changes which take place in the gut fauna during metamorphosis. Many larval microbes are lost during pupation and emerging adults may even be sterile. The relevance of this to the vectorial capacity of saprophagous flies is examined.

The two final chapters discuss flies as disseminators of more than 50 human and animal diseases. In the absence of definitive parasite stages in the insect hosts, the importance of flies relative to other transmission pathways is often based on circumstancial evidence alone; for example a correlation of increased numbers of