

*Nuclear Quadrupole Resonance in Chemistry.* By G. K. Semin, T. A. Babushkima and G. C. Yakobson. Pp. X+517. (Halsted, Wiley: New York and London; Israel Program for Scientific Translations: Jerusalem, October 1975.) £24.75.

THIS is a reasonably quick translation of an original published in the Russian in 1972. It does, however, have an inordinate price, considering that it has not even been set in normal print, but rather is the product of an electric typewriter. It is greatly to the credit of the authors that notwithstanding these shortcomings one is able to recommend it unreservedly to researchers in nuclear quadrupole resonance (NQR) spectroscopy, who will find 300 pages of data compilation invaluable (particularly because they contain so much from the Russian literature). The greatest emphasis is on the application of the technique to chemical problems and although the expert is so well catered for the authors have provided an adequate introduction to the technique and to the basic features of its theory. Any chemist reading the chapters which precede the data tables would acquire a sound feeling for the possible applications of NQR in his own field of research. What is not dealt with in detail, deliberately, is the quantum-mechanical calculation of coupling constants but this is no real shortcoming in a book which describes the chemical applications uniquely well.

The outstanding Russian contribution to this field of research is presented with modesty in a fascinating book.

**K. A. McLaughlan**

*The Living Ocean: Marine Microbiology.* (Biology and Environment.) By E. J. Ferguson-Wood. Pp. 146. (Croom Helm: London, September 1975.) £5.50.

I ENJOYED reading this book which is about the structure, ecology and economics of marine prokaryotes and protists. It was intended as a personal and selective account and has been rescued from an early draft prepared shortly before the author's death. It is therefore obviously open to some criticisms of approach and incompleteness. Ferguson-Wood's enthusiasm and involvement, however, are evident from the text which may be of most use as an infectious introduction to the subject. The book can be recommended to the beginner or layman, but cannot be regarded as an alternative to other accounts of microbiology, including the author's previous books, for more serious

students. Rather few references are given (in the guise of notes at the end of each chapter), some of these are rather trivial and more obvious important ones are omitted. The short title given on the cover and binding does not fairly indicate the book's content otherwise it is quite well produced with few minor errors—although some of the diagrams are poorly prepared. Professor Ferguson-Wood certainly contributed to the main course of marine microbiology; this book is a rather expensive aperitif.

**P. J. S. Boaden**

## Books brief

*Physiology of Physical Stress: A Selective Bibliography, 1500–1964.* By Carleton B. Chapman and Elinor C. Reinmiller. Pp. vii+369. (Harvard University: Cambridge, Massachusetts and London, 1975.) £8.25.

THE compilers of this bibliography have selected 2,800 references concerned with some aspect of the physiology of physical stress. Physical stress seems to mean physical exercise or physical activity, to judge from the preface. References dealing with 'basic physiological work on physical stress' are included but 'extensions were made into clinical areas that had basic implications'.

The word 'stress' is notoriously difficult to define, and for that reason is best avoided whenever possible. The title might well have been 'The physiology of physical exercise'. It is difficult to determine why the authors include particular papers but not others. The word 'basic' is used five times in the third paragraph of the preface where an account is given of the identification of 'basic' articles. No doubt there would be considerable individual differences in the interpretation of 'basic' and thus decisions to include or reject must be to some extent arbitrary. All the same, I was surprised at the omission of Marius Nielsen's famous paper on the regulation of body temperature during physical exercise, and no reference is made to Adolph and *Physiology of Man in the Desert*. There are some other equally surprising gaps and some curious inclusions.

Nevertheless, one must applaud the determination required to prepare a bibliography which, in spite of some reservations, I have found useful.

**O. G. Edholm**

*Electrode Kinetics.* (Oxford Chemistry Series.) By John Albery. Pp. xii+184. (Clarendon: Oxford; Oxford University: London, June 1975.) £5.00.

ELECTRODE kinetics is a difficult subject, especially for the beginner, and so a new book setting down the fundamental ideas in a clear, lively and occasionally humorous manner is welcome. Many will also see this particular book as an original contribution to the subject. It is suitable for specialist first degree courses in electrode kinetics but especially for new research workers in the field. There is also much to interest the expert, with many new angles on old problems. The subject is presented in a way which should be intelligible to the beginner. Even so, the amount of detail is considerable and many of the finer points are discussed. Inevitably there is much mathematics, but the reader is helped through this by numerous sketches of the important functions. The choice of much of the material reflects the author's own interests. There is an excellent chapter on the double layer and an illuminating one on the theory of electron transfer which should interest a wider audience.

**D. R. Whitehouse**

*Enzyme Induction.* (Basic Life Sciences, Vol. 6.) Edited by D. V. Parke. Pp. xii+328. (Plenum: London and New York, 1975.) \$32.50. THE title of this interesting book, which covers a Colloquium held at the University of Surrey in June 1972, is rather deceiving. "Enzyme induction" has been coined for a phenomenon involving *de novo* synthesis of a specific protein in response to a specific signal in the environment, such as the synthesis of  $\beta$ -galactosidase or tryptophanase by *Escherichia coli*, in response to the presence of a  $\beta$ -galactoside or tryptophan in the growth medium.

Except the first chapter dealing exactly with phenomena of this type, the rest of the book deals mainly with the effects of drugs and steroids on the appearance of several enzymes at the cellular or developmental level. This appearance is not necessarily a reflection of a *de novo* synthesis, but may be the result of a decreased degradation attributable or not to a stabilisation of the enzyme studied.

The various contributions of the book will prove very useful to those interested in the mechanisms of biological regulation and their possible roles in health, ageing and disease. The chapter on induction of drug-metabolising enzymes present in liver endoplasmic reticulum is of special interest.

**Georges N. Cohen**