

*Membranes and their Cellular Functions*

by J. B. Finean, R. Coleman and R. H. Mitchell

Halstead Press; New York; Blackwell Scientific Publications; Oxford, London, Edinburgh, Victoria, 1974  
vii + 123 pages. £ 2.80

At a time when membrane research is expanding rapidly and is attracting scientists from various disciplines and with different backgrounds a book like the present one is highly welcome.

The authors have endeavoured to write a readable compact introductory text to the benefit, primarily, of students of biological sciences, and have indeed attained their goal. They cover the essentials in membrane structure and function, including transport of matter or information, turnover etc.

The authors provide the reader — no matter how unprepared he may be at the start — with a clear outline of the fundamentals and of the problem in the field. Fact and fancy are clearly kept apart — a particularly important point for an introductory book dealing with

a rapidly expanding field. Although the text was written very recently a few statements do not hold quite true any more: e.g. the formula of alamethicin (p. 26), the phosphorylation of Na,K-ATPase at a Glu (it should now be Asp) residue (p. 40), and some readers may be less sure of the role of shockable proteins in membrane transport (p. 38). Imperfections and disagreements are only too natural at the present pace of membrane research and should not detract from an unusually clear and up-to-date text. To sum up: a right book, written by the right people, at the right time, in the right way with the right illustrations.

G. Seme

*Nitrogen Fixation in Bacteria and Higher Plants*

by R. C. Burns and R. W. F. Hardy

Springer Verlag; Berlin, Heidelberg, New York, 1975  
x + 189 pages. DM 59.80; \$25.80

Nitrogen fixation is a topic which has yielded spectacularly to the skills of investigators from many disciplines, ranging from chemists and spectroscopists to physiologists and agronomists. Notable discoveries in this research during the last fifteen years include ferredoxins and flavodoxins, the reduction of acetylene to ethylene by nitrogenase, the purification and characterisation of the enzyme, the synthesis of organometallic

complexes which bind dinitrogen in a way in which it can be reduced to ammonia under mild conditions and the transfer of the genes which determine nitrogenase from a nitrogen-fixing organism into organisms that previously did not fix. Burns and Hardy set out to describe these advances with a strong bias towards biological nitrogen fixation.

Chapters 1 to 3 of this book cover ecological,