

BOOK REVIEW

Na-linked Transport of Organic Solutes: edited by E. HEINZ, Springer, Berlin, Heidelberg, New York, 1972. 201 pp. \$8.90.

THIS book contains the proceedings of a Satellite Symposium of the 25th International Congress of Physiological Sciences in Germany which took place at the beginning of August last year. It contains twenty-five contributions which are concerned with the idea that a gradient of sodium across a membrane may drive the movement of organic solutes into a cell, the gradient of sodium was being maintained by a pump actively transporting sodium out of the cell.

If your eyes do not sparkle where you see ATPase, J_{max} , carrier, chemi-osmotic on the printed page, this is not the book for you. On the other hand, if you are a transport *aficionado* you might greet every page with enthusiasm. There are many of those trendy little diagrams of carriers shuttling back and forth across the membrane to keep you hooked and a good smattering of irreversible thermodynamics to give you the warm cosy feeling of precise science. Besides this, one's appetite will be whetted by the rhetorical title headings such as 'Does the stoichiometry of coupling necessarily reveal the composition of the ternary couples?' Arc dark deeds ahead within the membrane?

Initially, I nearly got carried away by the immediacy of the volume but soon the welter of information made me reflect 'Could the job of this book have been performed just as well by a review?' That of Schultz and Curran [*Physiol. Rev.* **50**, 637 (1970)] immediately came to mind. This latter review, a model of its kind, presents an excellent coverage of the subject with a detailed analysis of published data. The Symposium under review compares unfavourably in terms of organization; the papers appear to be thrown together. But it does have the great virtue of highlighting the problems in this very exciting area of membrane physiology. Not all the contributors believe that the movement of organic solutes is brought about by a sodium gradient. Schultz and Curran tend to consider the field in terms of what *they* think is happening. It is the diverse views of all those who have contributed to the symposium which makes it salutary and, I would say, required reading by all those actively interested in the field. However, those who do not have the theoretical background to the subject should read first the article by Schafer. The points he makes need to be remembered when reading the other articles, which are, however, of a good standard.

I also asked myself another question 'Who should buy this book?' My advice to librarians is that this book is not archival material. It is a tool for current research, just like a bottle of ATP. Departments ought to buy this book out of their money for consumables. As a member of the committee responsible for running the Library in my University, it worries me that we should be providing shelf-space for books that will be out of date very quickly. Ideally the book should have on its cover a statement like that given to that intrepid leader of the *Mission Impossible* team, Jim Phelps, 'This book will self-destruct in five years'. But for those five years the book (if a little pricey) is basically good value.

Oh, a word for plant physiologists and plant biochemists. There seems nothing of direct relevance to you. But one does know that sugar content of beet is increased by sodium fertilization and there is plenty of information coming forward about the interaction between ion and sugar levels in cells. So perhaps you ought to look at this volume.

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