

BOOK REVIEWS

An International Bibliography on Atomic Energy, Vol. 2. Scientific aspects. Supplement No. 1. Published by the Atomic Energy Section Department of Security Council Affairs, United Nations, New York, 1952. Price \$ 3.50.

The supplement No. 1 to the International Bibliography on Atomic Energy, Vol. 2, Scientific aspects, lists *ca.* 8000 articles published in 1949–50 dealing with scientific aspects of research in the field of atomic energy. The present supplement is organized in the same manner as Vol. 2 of the work, which appeared in 1951.

The five main chapters (I. Fundamental Nuclear Science, II. Physics and Engineering of Nuclear Reactors, III. Biological and Medical Effects of High Energy Radiations, IV. Isotopes in Biology and Medicine, V. Application of Radioactive Tracers in Non-Biological Sciences and Technology) are subdivided further than in Vol. 2, which is of advantage mainly in chapters I, II, and III. The attempt made at subdividing chapter IV appears to be problematic, because it is impossible without repetition of titles to group these papers unambiguously under one heading, only. The reader interested in any special problem within this field can hardly avoid going over all *ca.* 1000 titles listed under the common heading "Isotopes in Biology and Medicine".

The supplement 1 to the International Bibliography on Atomic Energy must be welcomed as a useful source of information, the more so in view of the fact that it becomes increasingly difficult for any scientist to find the time required for gaining even a superficial survey of the steadily growing literature which is distributed over an increasing number of journals. It would be very helpful if supplement 2 could follow supplement 1 promptly. A gap of two years between the conclusion of the bibliography and its availability to the scientist seems rather too wide.

HILDE LEVI (Copenhagen)

The Comparative Biochemistry of the Carotenoids, by Dr T. W. GOODWIN, Chapman and Hall, London, 1952. Pp. x and 356, 33 figs. Price £ 2. 10s.

Any new book on the carotenoid pigments must be judged according to the high standard set by the excellent treatise compiled by KARRER AND JUCKER (see this journal, vol. 7, page 176). It would be a mistake, however, to consider that Dr GOODWIN has entered into direct competition with these distinguished authorities. In KARRER's school the main interest has always been centred on the chemistry of the carotenoids, and of their derivatives, including vitamin A. The study of carotenoid distribution in plants and animals has been fascinating in revealing the presence of new derivatives, and in allowing their correct structural formulae to be deduced by chemical and spectroscopic methods. The interests of Dr GOODWIN, on the other hand, are those of a biochemist rather than of an organic chemist. Above all he is seeking for any evidence that may be available on the role of the carotenoids in the general physiological processes of plant and animal tissues.

After a preliminary chapter on definitions and nomenclature he divides his book into two parts dealing with carotenoids in plants and animals respectively. Topics in the first part include the distribution of carotenoids in all forms of marine and terrestrial plants, fungi and microorganisms, the effect of the development of plants on their carotenoid content, theories as to the method of their formation, their possible roles in oxidation-reduction systems and in photosynthesis, and their association with the reproductive processes. In the second part the distribution of carotenoids in all forms of animal life is dealt with no less comprehensively, and a special chapter is devoted to the conversion of carotene to vitamin A and factors which control this process. Finally there are two appendices giving the carotene contents of plants, one of them based on the extensive investigations by R. S. HARRIS in Central America, and adequate indexes arranged according to subject, authors' names and botanical and zoological names. Dr GOODWIN has obviously lavished much time and thought in compiling a highly commendable book, which should do much to stimulate further research on his favourite subject. It can confidently be recommended for a place in the libraries of all laboratories interested in biochemistry, botany, zoology or nutrition.

T. MOORE (Cambridge)