Book Notice

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This volume is aptly described as a monograph. Here one finds for the first time a coherent, documented review of the biological, chemical, and physical aspects of arthropod integument. An authority on insect cuticle, Dr. Richards is able to put forth the current concepts of arthropod integument with clarity and at the same time review the pertinent, sometimes conflicting, literature on the subject. This is accomplished by his direct manner of writing and by the use of more than 200 illustrations, including photomicrographs, electron micrographs, and line drawings, many of which are original.

The thirty-one chapters are divided into three sections, with the first treating the physical and chemical properties of the entire cuticle and its components, particularly chitin. In the second section, the gross and micro-structure and the formation of the integument are considered, with separate chapters on molting, calcification, and specialized structures. The final section considers the problems of permeability of cuticle and points out the relative scarcity of valid data in that field. The 76-page bibliography is carefully indexed, with each reference followed by the page numbers where it is cited in the monograph.

While intended primarily as a self-sufficient reference work for entomologists and invertebrate zoologists, the volume should prove adequate for chemists, biophysicists, physiologists, or toxicologists. Certainly anyone interested in any phase of arthropod cuticle will find in this publication a storehouse of previous studies, quantitative data and "leads" for future work.

FRANK W. FISK