

Elsevier's Encyclopædia of Organic Chemistry
 Edited by F. Radt. Series 3: Carboisocyclic Condensed Compounds, Vol. 12B: Naphthalene, A, Compounds containing One Naphthalene Nucleus, Hydroxy Compounds. Pp. xxxix+1053-2187+Ind. 108. (New York and Amsterdam: Elsevier Publishing Co., Inc.; London: Cleaver-Hume Press, Inc., 1950.) £29 to subscribers to whole work.

THIS volume follows the pattern of earlier volumes of Elsevier's Encyclopædia (see *Nature*, 161, 415 (1948); 163, 822 (1949); 166, 244 (1950)). It is the third part of Vol. 12B, dealing with naphthalene and its derivatives, and is concerned with all classes of hydroxy compounds related to naphthalene and the hydronaphthalenes. Although with this part Vol. 12B reaches a total of 2,187 pages, with indexes, it is not yet complete. When it is, it will be the reference work *par excellence* for those interested in the chemistry of naphthalene derivatives.

There are comprehensive accounts of the chemistry of the naphthols and their various reduction products, together with di- and poly-hydroxy naphthalenes, and also various derivatives of naphthalene and hydronaphthalenes in which one or more hydroxyl groups are present in side-chains. The halogenated naphthols, the nitronaphthols, the aminonaphthols and the azonaphthols are also dealt with, together with multifunctional compounds of these types and homologues of all of them. Scattered through the book are entries relating to alcohols of the sesquiterpene, diterpene and triterpene series (for example, eudesmol, cadinol, manool, sclareol, ambrein) having reduced naphthalene systems in their molecules, and it is interesting to note that the substances treated in the section which precedes the naphthols proper include the dyestuffs victoria blue and night blue.

The absence of references to the patent literature will naturally limit the usefulness of the work for those who are primarily interested in dyestuffs prepared from the naphthols and their derivatives. In technical production and freedom from error, this volume maintains the high standard of its predecessors.

J. W. COOK

Mechanics and Properties of Matter

By Dr. R. C. Brown. Pp. ix+276+ix. (London, New York and Toronto: Longmans, Green and Co., Ltd., 1950.) 10s. 6d.

IN this book, the first volume of a series intended to cover the various branches of physics up to school advanced and university intermediate level, the author's first consideration has been to make the fundamental principles clear to the average student. A university teacher and examiner of Dr. R. C. Brown's experience must realize all too well the chinks (a courtesy term) in the student's armour, where derivation of formulæ so often takes the place of trusty proof. His wise statement that mathematical analysis is not necessarily a substitute for physical reasoning indicates the general approach, which I find admirable.

Perhaps the conventional treatment of mechanics has formed itself around the mental habits of students, who tend at this level to prefer learning rules to thinking about principles. Will Dr. Brown convince and convert them? There can be little doubt about this when one turns to the chapters on circular motion, Newton's laws of motion, and the dynamics of simple systems, and realizes that these are really thorough pieces of explanation, set out in the simplest terms yet shirking no important point. The chapter

on surface tension is, as would be expected, excellent, and those on fluids in motion and diffusion and osmosis, though short, contain all that the student will need. Altogether, it is a very useful book which incorporates a good deal of training and much sound teaching in its presentation of the work.

G. R. NOAKES

Surface Active Agents

Their Chemistry and Technology. By Anthony M. Schwartz and James W. Perry. Pp. xi+579. (New York and London: Interscience Publishers, Inc., 1949.) 60s.

ALL interested in surface-active agents and their varied applications will welcome this book; its value is greatly enhanced by the numerous references given. In Part 1 the authors deal very thoroughly with the preparation of surface-active agents, and, although such agents exist in great number, the subject remains clear as a result of their convenient grouping into anionic, cationic, ampholytic and non-ionic types. Part 2 of the book describes the physico-chemical techniques used for investigating the properties of these agents in bulk aqueous phase. Wetting, foaming, emulsification and detergency are described with reference to up-to-date literature. In Part 3 applications of surface-active agents are comprehensively reviewed, and the patent literature given here is extremely useful for those directly interested in industrial application.

The authors have assembled in a very satisfactory manner the present knowledge of surface-active agents, and, although this branch of chemistry is expanding rapidly, their book will be much appreciated by all workers in the field and will stimulate the interest of students.

R. MATALON

La plongée en scaphandre

Par Commandant Tailliez, Commandant Cousteau, Lieut. Alinat, Dr. Devilla et F. Dumas. Pp. 120+7 plates. (Paris: Éditions Elzévir, 1949.) n.p.

IN this book the authors lead the reader through the physics, physiology and material aspects of diving, including standard and self-contained apparatus and mixture breathing. In fact, in a volume of this size, they have attempted to cover too much ground. The result is a book which, while being difficult for the beginner, is elementary to the expert. New decompression tables, based on those in use in the United States, have been recalculated in metres. It is interesting to note that the authors take into account the '120-minute tissue'. Recent experiments in Great Britain have shown that the '75-minute tissue' is probably the longest. The method of computing a 'combined dive' is novel and simpler than that in use in Britain. The book, apart from some mistakes in spelling and in the calculations, is well printed and has some excellent illustrations.

Laboratory and Workshop Notes

A Selection reprinted from the *Journal of Scientific Instruments*. Compiled and edited by Dr. Ruth Lang. Pp. xii+272. (London: Edward Arnold and Co., 1949.) 21s. net.

ANY work sponsored by the Institute of Physics must command attention, and this collection of laboratory and workshop notes taken from the *Journal of Scientific Instruments*, for the production of which the Board of the Institute is responsible, is no exception. The book is not intended to cover the complete range of laboratory and workshop practice, but all the problems dealt with are extremely useful