

Anesthesia was carried out by dipping trout for less than 1 min in a solution of tricaine methanesulfonate 1 : 5,000 in spring water.

This observation shows that tricaine methanesulfonate, or other anesthetics with similar molecular structure,

should not be used whenever they may interfere with the colorimetric tests for sulfonamides.

S. B. FRIDDLE and S. F. SNIESZKO

U. S. Fish and Wildlife Service,  
Kearneysville, West Virginia

## Book Reviews

*Einführung in die Kernphysik.* 4th rev. ed. Wolfgang Riezler. Berlin and Buxtehude, Germany: Hermann Hübener, 1950. 309 pp.

The chief difficulty in introducing nuclear physics to the beginner or to the worker in other branches of the natural sciences is to find a scientifically correct presentation requiring a minimum of background in physics. This is accentuated if, as the author wishes, the text should also appeal to a wider public. Riezler attacks the problem by giving an essentially nonmathematical, somewhat narrative treatment, using the historical approach for balanced measure. Formulas are used sparingly. Even where they are given, the nonphysicist is generally able to understand the result from the text alone.

The first half of the book contains a survey of the physical aspects in a deductive order: atomic physics, general properties of nuclei, radioactivity, nuclear reactions, elementary particles, and systematics and structure of nuclei. The second, in parts more specialized, is devoted to nuclear techniques and to the applications of nuclear physics. Tables of isotopes and nuclear reactions, as of summer 1949, a glossary, and registers fill the last fifty pages. A two-tone isotopic chart, giving abundances and half-lives only, is attached.

The book is, throughout, well written, clear, and usefully illustrated. The small number of printing errors and factual mistakes will be detected and corrected by most readers. A few instances of repetitions of topics are excusable. One major omission may be noted. The liquid drop model is not mentioned, although the packing fraction curve and the mass parabolas for isobars are given and discussed. The chapter on electronics of nuclear detection instruments is rather inadequate, at least for the reader in the United States, since several outmoded designs are presented. The usefulness of the extensive tables is seriously limited by the lack of references. A list of only about 40 books and review articles is given in the bibliography, without connection to the tables or to the text. Finally, in the chart of isotopes, one may object to the distinction made between positron emitters and nuclei decaying by positron emission and electron capture.

These are all minor objections, however, to a text which gives an excellent survey of nuclear physics for beginners and nonphysicists. It is even quite fruitful and pleasant reading—in good German—for the physicist. It may be added that the print, though fine,

is very clear, on good paper, and that the book is well bound, in gratifying contrast to some volumes received from Germany during or shortly after the war.

E. BLEULER

Purdue University

*Kleine Raketenkunde.* Hans K. Kaiser. Stuttgart, Germany: Mundus-Verlag, 1949. 150 pp. DM 9.

This is not the only new book on rockets and rocket research that has been published in Western Germany since the end of hostilities. There have been three so far, but *Kleine Raketenkunde* is certainly the most impressive of them. In external appearance it compares well with better books of German manufacture of prewar times and is almost lavishly illustrated. Many of the photographs collected by its author are rather rare, a number never having been published in a book before. Hans Kaiser was the founder of a prewar rocket society, devoted to space travel ideas, which had the courage to continue the work of the original German Rocket Society in spite of frowns from Nazi headquarters. Naturally, that society did not last very long, and its founder was then put to work in the research institute at Peenemünde, where the V-2, the *Wasserfall*, the *Taifun*, and a number of other rockets were created.

Since the book is meant for the general reader, it logically begins with an elementary explanation of the third law of motion and its application to rockets. This is followed by a chapter on rocket research, most of it in Germany, during the period from 1920 to 1930. Then there is a chapter on modern solid fuel rockets, followed by one on German work on liquid fuel rockets during the second world war. This chapter contains a good deal of information that will be news to virtually every reader, in Germany as well as in all other countries.

The author then continues his narrative of contemporary rocket history with an account of postwar work—this largely in the United States—as far as the sources at his disposal permit. The last chapter is devoted to the future. A list of the more important publications in book form and a list of technical terms with explanations form appendices. Some readers who did not know anything about rockets until V-2 appeared on the scene may be surprised by the heavy stress throughout the book on space travel. But these ideas are what started rocket research in Germany.

WILLY LEY

Montvale, New Jersey