the title is misleading. Contrary to the rule, the proofreading has been very well done (I noted no typographical errors). Although I was disappointed to find considerable duplication of material (indeed, the same equation, the equation for the theoretical exhaust velocity in a rocket nozzle, is derived in two different chapters by two different authors), the editor has otherwise done a commendable job; the book appears to be remarkably free from half-truths or misstatements.

I particularly enjoyed E. Stiefel's treatment entitled "Many-body problems and interplanetary flight" and A. J. Sarnecki's "Dynamics of rigid body motion with especial application to the rotation and stabilization of satellites." Stiefel's treatment of the motion about a central body is quite lucid. Sarnecki spends some 27 pages laying the mathematical framework in tensor analysis on which to develop his thesis. Engineers will find this section of great value in assessing the utility of vectors and tensors as mathematical tools, as in rigid-body mechanics, or in brushing up on a long-neglected technique.

Inasmuch as his material is primarily descriptive, I found H. G. R. Robinson's discussion "The overall design concept of the E.L.D.O. 'Initial Programme' satellite launching vehicle" quite out of place in a book of this title. The chapter "Space vehicle stabilization," by W. G. Hughes, is very sketchy. His discussion of aerodynamic torque, to which he devotes an entire "section," consists of the enlightening statement that " . . . aerodynamic torques are likely to become comparable with gravity torques somewhere in the height range 100 km to 600 km."

R. H. Giese has contributed a chapter entitled "Fundamentals of satellite tracking and orbit determination"; M. J. Davies, "The planetary equations and atmospheric perturbations of a satellite orbit"; and W. M. Kaula, "Gravitational and other perturbations of a satellite orbit." These chapters appear to be uniformly good. D. S. Carton has wasted 10 pages in a discussion entitled "The propulsion and motion of rigid rocket-propelled launch vehicles" inasmuch as virtually all he has said is repeated in much greater detail by J. M. J. Kooy in "Dynamics of controlled rocket launching."

I recommend the book only to those willing to pay the full price for a fraction of the 313 pages.

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Foundations of Modern Chemistry

Nuclear Chemistry. Bernard G. Harvey. Prentice-Hall, Englewood Cliffs, N.J., 1965. viii + 120 pp. Illus. Paper, $1.95; cloth, $3.95.

With rare exception the chapter entitled "Nuclear chemistry" in freshman chemistry textbooks fails to reflect the research activities of present-day nuclear chemists. This is due to the fact that the theory of such research falls under the scope of nuclear physics and, frequently, only the experimental technique or the training of the investigators justifies the use of "chemistry." In this respect, nuclear chemistry is quite distinct from radiochemistry, which is the application of nuclear techniques to chemical problems. Harvey has written this book, one of the Foundations of Modern Chemistry Series, within this definition of nuclear chemistry. He describes his book as "a nonmathematical introduction to the rich variety of nuclear phenomena, intended especially for scientists outside of the field of nuclear physics" and, hopefully, with "appeal particularly to students of chemistry."

In the first five chapters he describes the general features of the nucleus, forces within nuclei, theories of nuclear structure, radioactive decay, and nuclear reactions and fission. Throughout, greater emphasis is placed on interpretation in terms of models than on nuclear phenomena per se. The final three chapters cover material found commonly in freshman chemistry texts—Radiation, matter, and counters; Particle accelerators and reactors; and Applications of nuclear science.

The competence and enthusiasm of the author are evident throughout this well-written book. Furthermore, he meets admirably the demands of selection, conciseness, and clarity imposed by the 120-page format. An average first-year chemistry student may have to struggle, but not unduly, with some sections—for example, the discussion of angular momentum. Although additional reference books are cited at the end of the book, a specific bibliography placed at the end of each chapter might have been more helpful.

It was a pleasure to read this book, and I recommend it as a fine introduction to the major topics of interest to nuclear chemists.

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Virology

Viruses, Cells, and Hosts. An introduction to virology. M. Michael Siegel and Ann R. Beasley. Holt, Rinehart, and Winston, New York, 1965. 175 pp. Illus. Paper, $1.96.

This small book has many features that recommend it for the general reader and as a supplement to a general biology textbook for students interested in virology. It covers the most important and active areas of the subject and takes pains to explain the techniques and manipulations that the virologist uses in making his observations. Hence, it gives the reader a better understanding of the subject than the usual type of popularization in which exciting results are cited without operational details. Successive chapters deal with the structure and organizations of cells, the structure of virus particles, the methodology of virus research, the virus-cell interactions, and the production of malignancy by viruses. In the first part the style and presentation are quite elementary, and occasionally even sloppy; the writing becomes more technical and frequently obscure in later chapters, where the authors are dealing with subjects closer to their professional interest.

The value of some of the background material included is questionable. A reader unfamiliar with the elements of cellular biochemistry given in chapter 2, or with those of atomic structure outlined in chapter 4, would hardly find a book on viruses understandable, even with these brief explanations.

Some major mistakes have been allowed to slip in, as in an illustration of the duplication of DNA, which lists the "free nucleotides" as precursors. Also, one notices some evidence of imprecise thinking or writing, for example, "Proteins give the cell body