BOOK REVIEWS

Selection of books for review is based on the editors' opinions regarding possible reader interest and on the availability of the book to the editors. Occasional selections may include books on topics somewhat peripheral to the subject matter ordinarily considered acceptable.

INFORMATION WEALTH WITH POVERTY POCKETS

Title Action of Ionizing Radiation on Ion-Exchange Materials

Authors E. V. Egorov and P. D. Novikov

Publisher Daniel Davey & Co., Inc., 1967

Pages iii + 251

Price $16.50

Reviewer Jerome Weiss

The authors state in the preface that this book was written to meet the needs of specialized workers in the fields of both ion exchange and radiation chemistry. The book is also intended for use by scientists and engineers working on the application of ion-exchange methods in processing radioactive materials, as well as for those interested in individual aspects of radiation chemistry. Most of these goals have been accomplished and the book does gather together a wealth of information that was formerly widely dispersed in the literature.

The first chapter gives an excellent review of ion-exchange materials and properties, and, consequently, is of value to those wishing to begin ion-exchange studies.

The section of the second chapter on dosimetry is very comprehensive and a valuable addition to the current radiation dosimetry literature. This section is followed by two less successful sections. The radiation of high polymers section is covered rather hurriedly and many generalizations are made. Let the uninitiated beware. Another weak spot in the book is the next section on the radiation chemistry of water and aqueous solutions. Although the authors claim to have covered the published literature up to 1965, it would have been more correct if they limited this claim to the Russian literature. Most of the data given in this section from other than Russian literature are obsolete. Although there has been a great deal of work done in England and the United States on this subject since 1958, there are no recent references in the bibliography.

The remaining four chapters cover the effects of ionizing radiation on cation-exchange resins, anion-exchange resins, other ion-exchange materials including membranes, and finally a speculative chapter on mechanism of radiation-chemical transformation in ion-exchange resins.

The two appendixes are extremely useful additions, one being a description of various ion-exchange materials and the other a compilation of published experimental data on the effect of ionizing radiation on ion-exchange materials.

Except for the shortcomings mentioned above, this volume is a well presented and illustrated reference book that covers an important subject in detail.

Jerome Weiss is a member of the Nuclear Engineering Department at Brookhaven National Laboratory, where he has been since 1951. His primary interests are in chemical dosimetry and organic radiation chemistry. His BA degree (1948) is from Cornell, and his PhD (physical chemistry, 1951) is from Indiana University.

OF WHOM THE BOOK TOLD

Title Manhattan Project: The Untold Story of the Making of the Atomic Bomb

Author Stephane Groueff

Publisher Little, Brown and Co., 1967

Pages xii + 372 + 16 pp. pictures

Price $6.95

Reviewer Charles D. Coryell

Without going into technical details, this book gives a general picture of the wartime production on a ton-per-year scale of ^{235}U and ^{239}Pu, and the resulting "Little Boy" (gun assembled) and "Fat Man" (implosion) nuclear bombs that were used in August 1945. There is the drama of the combination of people like General Groves, scientists, engineers, and industrial magnates who faced repeatedly seemingly impossible tasks—and who then completed these tasks fairly effectively.

The author, a professional newsman from Europe, has been chief of the New York Bureau of Paris Match since 1956. He interviewed 175 Manhattan Project alumni in all; 8 from the army and 52 from university circles, including the 17 from the wartime Los Alamos Laboratory. The remaining 115 are from a fairly representative set of industrial contractors. He even presented personal sketches of several girl operators of the Y-12 "cubicles" who controlled the dials of the smallest units of the electromagnetic separation process. Mr. Groueff