nuclear bomb. These contributions are described in some detail. In this part of the book attention is understandably focused on the research aspects of the release of nuclear energy, to which Fermi contributed much. However, the broader features of this development, including the financial, managerial, and engineering contributions to the Manhattan Project are somewhat deemphasized. The reader not familiar with these aspects may gain a somewhat distorted view of the remarkable achievements made by the Manhattan Project in such a short period of time.

It should be kept in mind that for the success of this project

1. Vast sums of money were required at a time when mobilization was taking place for the invasion of Europe, and when the war with Japan made great demands upon our resources.
2. Engineering process design, construction, and management on an unprecedented scale and tight time schedules were required.

In the first category, Lindemann, through Churchill, played an important part in keeping Roosevelt reassured of the high priority that should be attached to the Manhattan Project. During an information exchange visit that I made to England during the winter of 1944, Lindemann told me of some aspects of this problem.

In the second category, the chemical and petroleum process industry had reached a high degree of proficiency in the United States during the period before World War II. Many individuals in this industry possessed a high degree of competence and qualities of leadership that enabled them to approach these novel problems with skill and effectiveness. Without the able contributions of men from such companies as DuPont, Union Carbide, Kellex, and others, the ideas of nuclear fission would have remained for many additional years in the laboratory stage.

These comments are not made as a criticism of this book by Professor Segrè, which understandably has as its primary scope the impact of the works of Fermi upon physics and scientific thought. The book is carefully prepared and can be recommended highly.

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About the Reviewer: Gene Booth is now director of research at Stevens Institute of Technology and dean of the Graduate School following a period in industry (American Optical Company) and civilian service for the military (scientific director for the Supreme Allied Commander). In the interval 1937-1959 Professor Booth was associated with Columbia University where, during the war years, he made outstanding contributions to the science and technology of the Manhattan Project, especially the gaseous diffusion process for separation of the uranium isotopes. Professor Booth's undergraduate and early graduate studies were at the University of Georgia. He completed his formal studies in physics at Oxford.

Principles of Activation Analysis. By Paul Kruger. Wiley-Interscience Publishers (1971). 522 pp. $25.

This is a difficult book to review. It has many good features and it has many poor features. It is stated to have been designed as a textbook for college students, but it reads rather more like a reference book. Almost everything that should be said about activation analysis is there (along with an excessive amount of extraneous material), but it is unfortunately all said in a monotone. Subjects of very slight importance, such as second-order minor complications, receive the same amount of treatment as subjects of paramount importance. A student with no previous experience in the field of activation analysis would very likely be quite confused if this book were his only source of information on the subject. He would probably never be able to see the forest for the prodigious number of trees. There are too many side excursions into irrelevant areas, making the book excessively long and expensive. The style is rather pedantic and uninspiring. It reads too much like a conglomeration of extracts from the literature put together in some logical order by a trained scientist—but unfortunately one with only little actual personal experience in the field of activation analysis. The book contains an unusually large number of errors—typographical and otherwise.

On the brighter side, this book contains a great deal of factual information on the subject of activation analysis, with a large number of excerpts (photographs, figures, graphs, and tables) from the literature. It thus appears to be a good reference book for the library, but not a very useful textbook. In nine chapters, occupying 511 pages of text, the author treats the subjects of

1. stable and radioactive nuclides
2. radioactivation
3. irradiation sources
4. radionuclides
5. radiation detectors
6. radiochemistry and radioactivity measurement
7. activation analysis practices
8. activation analysis limitations
9. activation analysis applications.

At the end of each chapter, a number of problems are given (averaging about 1.5 pages per chapter), and a collection of bibliographical references is given (averaging about 2 pages per chapter). The book is well indexed.

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The Foundations of Neutron Transport Theory. By Richard K. Osborn and Sidney Yip, Gordon and Breach Science Publishers, Inc., New York (1966). 126 pp. $8.75

This monograph was a pleasure to review. From their collection of "bits and pieces" the authors have assembled