be most suitable for the following elements (or certain of their compounds): phosphorus, silicon, nitrogen, chlorine, bromine, iodine, fluorine, sulfur, tellurium and selenium, and boron. In general, following an introduction, each chapter covers separation, methods of determination, and important specific applications.

The list of supporting literature cited includes 718 references. A chemist informed about the literature would note that only two of the references cited appeared as late as 1957 and only six in 1956, although the book did not appear until well into 1958. The following are possible explanations for this small number of late citations: (i) there has been no more recent work; (ii) if there has been, the methods have not been sufficiently tested to justify inclusion in the volume; and (iii) the inevitable time lag in publication prevented inclusion of late work. In evaluating the up-to-dateness, of course, an experienced worker will rely on the date of the latest references cited rather than on the date of the copyright.

Three notable nonmetals not included are carbon, hydrogen, and oxygen. I would have welcomed chapters on these important elements, especially on hydrogen ions and simple inorganic compounds such as water, carbon monoxide, and carbon dioxide. Obviously, the wealth of organic compounds susceptible to colorimetric measurement could not be included.

This book is a valuable reference compilation for the elements covered and no doubt will be often cited, as Sandell's companion volume has been. The methods are carefully selected and concisely stated. Meticulous editing and proofreading have reduced inconsistencies and typographical errors to a minimum.

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Handbuch der Physik. vol. XXXIV, *Corpuscles and Radiation in Matter, II.* S. Flügge, Ed. Springer, Berlin, 1958. viii + 316 pp. Dm. 78.

This new volume of the *Handbuch der Physik* contains six more or less independent articles pertaining to the processes involved in the slowing down and disappearance of particles and radiation in matter. The emphasis throughout is on the experimental results; theory is introduced only in order to show the agreement between theory and experiment.

The first article, written by R. Kollath, is in two parts—the first on slow electrons and the second on slow ions. The discussion of electrons starts with a careful review of the experimental determinations, both as to methods and as to results. The comparison with theory that follows is restricted to angular distributions, these being the most sensitive to test. The part concerning the passage of slow ions through gases starts with a discussion of sources and proceeds to the experiments. The results are indicated in some detail, with major emphasis on the role of exchange and resonances. A short paragraph about negatively and multiply charged ions concludes the article.

The second article, written by R. D. Birkhoff, treats the passage of fast electrons through matter. Summaries of the theories for various types of events are given and compared with the results of experiment. Free electron-electron and positron-electron collisions are discussed. This is followed by a section on stopping power for electrons, including density effect and Cerenkov radiation. Considerable space is given to a treatment of collisions with the conduction plasma. The rest of the article treats the statistical behavior of electrons. Energy loss and straggling are well treated. This is followed by a thorough discussion of the theory and results in multiple scattering. The results of single nuclear scattering calculations by several authors are collected in convenient form. Finally, the effects of thick targets and associated range relations are presented.

Positronium is the subject of the third article, written by L. Simons. The theoretical results are presented in the first part. There follows a more or less historical discussion of the experiments on positronium, including quenching, spectra, angular correlations, and solid state aspects, which does very well in introducing the reader to all but the most recent work.

The fourth article, written by E. Merzbacher and H. W. Lewis, is on x-ray production and ionization by heavy ions. It starts with a theoretical discussion of some length. Experimental results are given and compared to the theory, particularly with respect to ionization. The article concludes with a short section on continuous radiation.

Energy loss by heavy particles in the energy range below 10 Mev is treated by W. Whaling in the fifth article. The results in this region are mostly experimental. A very useful collection of results has been assembled. Most of the values given are for protons and alpha particles, but a few results for heavier ions are included. I regret that the article does not include results at higher energies, which occupy a position of major interest today.

In the final article, R. D. Evans gives a comprehensive treatment of the Compton effect. Starting with a historical background, he discusses the early experiments and their later improved versions. The treatment is such as to point up the similarities and differences of the classical and quantum treatments. Formulas, graphs, and tables for various cross sections are given, including some energy distributions useful in instrumentation. Following this is a summary of absorption data for photons. The effect of electron binding on the photon scattering is discussed, including Rayleigh scattering. Finally, there is a section on Compton scattering by magnetically oriented electrons, with an indication of the possibility for detecting circular polarization.

Two general items disturbed me slightly. The termination date of the bibliographies was not always clear, and some of the graphs appear to be only of qualitative value. The articles do, however, supply good introductions to the various topics.

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Anatomist at Large. An autobiography and selected essays. George W. Corner. Basic Books, New York, 1958. v + 215 pp. $4.

George Corner presents a brief but poignant glimpse of his personal and professional life as introduction to ten selected essays and addresses from his pen. The autobiographical matter tells of family, and of boyhood and education in Baltimore. It tells of the young doctor's decision to follow a laboratory career and of the felicitous associations and circumstances accompanying a productive life as a distinguished leader in investigations of the sex hormones. One could wish for more than 64 pages of autobiography in this book of 215 pages. Readers would have welcomed inclusion of a photograph of the author.

Arranged in chronological sequence, from student days to retirement, the several essays and addresses suggest a measure of the wisdom and humanity of the author. Three essays, reflecting his scholarly interest in medical history, are followed by a look at the scientist in his workshop. In this account of his "quest for a hormone" one may discern the undercurrent of subdued excitement, the sense of urgency, and the aura of imminent discovery that pervaded his laboratory. Such an atmosphere is heady wine, and it drew able and dedicated investigators to his side from across the world.

The addresses offer sage advice and reflective comment on subjects ranging from the attributes of a good physician to a contemplation of the "incomprehensibles" that the thoughtful scientist cannot evade. Finally, there is consideration