$40. However, since physics libraries will be required to purchase copies, this book, which is the excellent combination of a cookbook, reference-record, and nuclear history-account, will, nevertheless, prove to be available and to be very readable, useful, and inviting to the neophyte physicist.

H. W. KOCH
Radiation Physics Division,
National Bureau of Standards

Strahlenbiologie, Strahlentherapie, Nuklearmedizin, und Krebsforschung, Ergebnisse 1952–1959. H. R. Schinz, H. Holthusen, H. Langendorff, B. Rajewsky, and G. Schubert, Eds. Thieme, Stuttgart, 1959 (order from Intercontinental Medical Book Corp., New York). 998 pp. Illus. $65.50.

In the 16 chapters of this volume, 19 experts present and discuss the progress made between 1952 and 1958 in the fields mentioned in the book title. The first chapter (by H. Sommermeyer), on the historical development of the target theory, emphasizes the applications made since 1946. This is followed by four chapters on radiation genetics in bacteriophages (by W. Harm), microorganisms (by R. W. Kaplan), *Drosophila* (by H. Fritz-Niggli), and mammals (by H. Nachtsheim). Dosage problems and megavolt irradiation techniques are discussed in two chapters (by W. Pohlit and R. Wideröe, respectively). Three chapters are devoted to clinical-therapeutical applications, experiences, and results obtained when different equipment and methods are used in different situations. Of special interest is the chapter on rotation therapy and grid therapy, as well as the chapter (by Hug) on the acute general reactions to total-body and partial-body irradiations. Progress in the application and use of isotopes is analyzed in two chapters: a critical review of treatments with radioisotopes and a report on I^{131} diagnostic procedures in thyroid diseases. A chapter on the effects of drugs on the radiation damaged organism and a chapter on radiomimetic substances complete the collection.

The book is stimulating reading for every one working in the mentioned fields and is of special interest insofar as it reflects, in the broadest sense, the European approaches and attitudes towards radiation biology and radiation medicine. Written by German and Swiss scientists, it shows their way of analyzing and interpreting data, with the goal of giving stimulation and presenting conclusions which may inspire and promote future experiments and research.

The simplest way to give an idea of the level, value, and importance of the volume is to compare it with the well known Annual Review Series covering such fields as nuclear medicine, physiology, and biochemistry. In doing this, it becomes evident that the book compares favorably with these volumes. This is all the more remarkable since the authors had to cover in a limited space nearly 7 years of progress. Much more impressive are the well written presentation and the clever and experienced selection of the numerous references. For a long time this book will be an important reference work for study, lecture, and research.

A. T. KREBS
Biology Department,
University of Louisville

General Climatology. Howard J. Critchfield. Prentice-Hall, Englewood Cliffs, N.J., 1960. xiii + 465 pp. Illus. $7.95.

Breadth rather than depth characterizes this book. This is intentional because it is evident that the book is aimed at the nonspecialist student. As the text for an elementary course, it will fulfill its purpose.

The book deals with weather and climate. One part is devoted to a description of the climates of the world. The use of meteorological and climatological knowledge in human activities is related. Also included in its wide range are weather forecasting and the influences of weather on vegetation and soils.

In some respects one could call this an anthology; it contains nothing original, and it is evident that the author has not gone much beyond secondary sources. About two-thirds of the nearly 200 illustrations are from other works. Many came from other texts: volumes of *The Yearbook of Agriculture* and other government publications.

Critchfield has an easy style, and the well-produced book is completely free of technical jargon. But I hope no one will be misled by this smooth approach and conclude that answers in the fields of atmospheric sciences are easy to come by.

H. E. LANDSBERG
Office of Climatology,
U.S. Weather Bureau

Progress in Inorganic Chemistry. vol. 1. F. A. Cotton, Ed. Interscience, New York, 1959. ix + 566 pp. $14.50.

According to the preface statement by the editor, this volume initiates a new series of publications on modern inorganic chemistry; it is intended that the volumes appear annually, that the articles be written by leading researchers in the particular field, and that they be comprehensible, but not necessarily readily so, to a competent research worker at the Ph.D. level in some branch of inorganic chemistry, not necessarily the one under discussion.

It is further intended that the author be given the responsibility and the privilege of presenting a scholarly and accurate account of his subject without feeling that he needs to oversimplify and that he be regarded as best qualified to determine the style, length, and general nature of the treatment of his subject. Articles are to be published in English, German, and French.

The first volume contains seven articles: "Cyclopentadienyl and arene metal compounds" (G. Wilkinson and F. A. Cotton); "Interstitial compounds of graphite" (G. R. Henning); "Über Schwefel-Stickstoff-Verbindugen" (Margot Becke-Goehring); "Metal-ammonia solutions" (W. L. Jolly); "Isocyanide complexes of metals" (L. Malatesta); "The effects of inner orbital splitting on the thermodynamic properties of transition metal compounds and coordination complexes" (P. George and D. S. McClure); and "The structure and properties of mixed metal oxides" (R. Ward).

This new series on the progress in inorganic chemistry appears to have gotten off to a good start, and forthcoming volumes, if they maintain the high ideals that have been set, should prove to be extremely valuable in presenting the rapidly developing mass of information in this branch of chemistry.

RALEIGH GILCHRIST
Division of Chemistry,
National Bureau of Standards