rial concerning mineral structures and relationships which have been discovered by modern physical and chemical methods in recent years. He pays special homage in an eloquent epilog to the contributions made by x-ray diffraction and crystal structure analysis. On the whole, the work still retains the classical lines of descriptive mineralogy of 30 years or more ago, with the new material inserted as glosses on this basic pattern. There is such an enormous wealth of knowledge about the structure and physical and chemical behavior of minerals available today—which goes far toward explaining the most baffling problems of mineralogic paragenesis and phase relationships as well as explaining the specific behavior of the minerals themselves—that it is a disappointment not to see much more incorporated in this book.

There are many defects and errors that mar the text. The structural information is not of recent date: for example, the mixed SiO_4 and Si_2O_7 groups in idocrase are not mentioned, while a ninefold ring structure (Si_9O_{27}) is suggested for tourmaline. Many very rare species are described and classified, but several common species are not mentioned at all, such as epsomite, colemanite, apophylite, prehnite, turquoise, and ice. There is no discussion of crystal symmetry; the long obsolete Levy symbols are used throughout; and the crystal figures are very poorly drawn. There is not a single reference to another book or paper.

It is to be hoped that the commendable plan of a work on mineralogy designed for the interest of scientists in general will be better fulfilled in future editions or issues.

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Guide for Safety in the Chemical Laboratory. General Safety Committee of the Manufacturing Chemists' Association. Van Nostrand, New York, 1954. xiii + 234 pp. Illus. $4.25.

The publication of this book should satisfy the needs of laboratory staff members, instructors, and laboratory designers for a safety manual directed specifically toward problems that arise in chemical research and development.

Some sections of the book—the chapters that treat chemical hazards, toxicity, pressure vessel hazards, and personal protective equipment—are useful and even interesting reading for the experimenter. A pedagogical tone, perhaps impossible to avoid, is evident in other serviceable chapters that deal with everyday operations—for example, the danger of leaning too far backward (in swivel chairs) is pointed out. The discussion of hazards encountered in experimentation with radioactive substances should serve as an introduction to the subject for one who is considering doing such work. The chapter on specialized phases of first-aid and treatment was prepared by a medical committee and should be of interest to physicians as well as to laboratory workers.

References are given in the text and in a table. Other tables on toxicity and flammability and a complete index are included. The usefulness of this book would be increased if supplementary bibliographic material were added, especially for the sections that are of an introductory character.

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An Introduction to Climate. Glenn T. Trewartha. McGraw-Hill, New York–London, ed. 3, 1954. vii + 402 pp. Illus. + maps. $7.

In 1936 Finch and Trewartha published a textbook of nearly 800 pages entitled *Elements of Geography.* It was a very useful book because it was a survey of the whole field of geography, although the emphasis was uneven. The first and major part of the book dealt with the natural elements of landscape; the first several chapters were grouped into two sections under the titles "Elements of weather and climate" and "The climatic types and their distribution." The next year Trewartha revised and expanded these two sections somewhat and published them in a separate book entitled *An Introduction to Weather and Climate.* Trewartha explained that it was avowedly introductory in character; he treated the subject from the climatic rather than the meteorologic point of view and laid no claim to completeness. It was written as a textbook at college level for use in geography departments. It was a popular book and, after 6 years, was revised and reprinted.

Now, after 11 years, another edition has appeared, with the shortened title *An Introduction to Climate.* The organization is the same as that in earlier editions, but the fact is unmistakable that a great deal of work has gone into the revision. Large sections were rewritten in order to bring the discussion into harmony with more recent materials and points of view. There is an entirely new chapter on climatic classification. Many new illustrations have been added, and many of the old ones were revised or redrawn. Like the earlier editions, this book consists of two parts: Part I emphasizes the systematic aspects of climatology and part II the regional features as revealed in the world pattern of distribution.

The book was written by a geographer for geographers. The author emphasizes description and distribution but attempts to introduce sufficient background on the physical processes of the atmosphere to make the patterns of climatic distribution intelligible. It is his conviction that a climatology that omits, or seriously slights, genesis and explanation is not only dull but also inadequate for geographers' needs. Actually, to present the substance of physical climatology adequately to students who have had neither physics nor mathematics is impossible. Therefore, the explanation is necessarily largely geographic and descriptive rather than physical, and as such is mere garnish.

There is no real reason why we should have one climatology for geographers and another for meteor-