scribed, and the main trends are made perfectly clear. The treatment of the attempts to find a proper nomenclature for organic compounds is truly masterful and should provide the starting point for a whole host of further, more particular, studies.

Crosland's faults seemed few and minor to me. His style is a bit monotonous, and there are repetitious passages that could be eliminated. On the whole, however, the book is one that can be wholeheartedly recommended. It is an exciting work that should be indispensable to both the practicing chemist and the historian of chemistry.

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Nontechnical Earth Science

Earth, Sea, and Air. A survey of the geophysical sciences. Jerome Spar. Addison-Wesley, Reading, Mass., 1962. vii + 152 pp. Illus. Paper, $1.75; cloth, $2.95.

In recent years we have witnessed an unparalleled rekindling of interest in our earth and with it the need for an introductory, interdisciplinary text designed for readers with only a general high-school acquaintance with mathematics and science—readers who do not intend to make a career in science. This tidy little volume by a meteorologist who has distinguished himself in teaching and research will be welcomed by such readers as well as by anyone teaching a one-semester course on earth science for nontechnical students.

The first chapter is concerned with the earth as a member of the solar system. The basic laws of planetary motion are described from a historical point of view, and the motions of the earth are outlined in some detail, including their relation to our time base and the seasons. The development of our understanding of gravity is outlined with emphasis on the meaning of its variations with respect to isostasy and the structure of the earth. The section in which some of the most common types of map projections are described will help the reader to understand better the relation between projected maps and the characteristics of the areas represented.

The second chapter, on the solid part of the earth, is concerned with how geophysical studies provide information on the earth's major features. After a brief historical introduction, the contributions of seismology and geomagnetism are treated in some detail. The coverage of geological problems is of necessity brief in a short book of this type. The author has succeeded in directing attention to the principal areas where geophysical studies contribute to geological knowledge. As such, the book provides a valuable supplement to conventional treatments of earth science which emphasize surface geology.

Chapter 3, on the oceans, treats the topography of the ocean basins, the physical properties of ocean water, ocean currents, waves, and tides. An effective balance is achieved between descriptions of the phenomena and the methods used to observe them. Interactions of the atmosphere and ocean are emphasized in a way that makes clear the interdisciplinary nature of earth science. The excellent explanations of the phenomena are marred by an unfortunate confusion between the wind (drift) currents which disappear at a depth of a few hundred feet and the deeper currents which owe their origin to the wind; the deeper currents are geostrophic and disappear at an average depth of 4500 feet. The sequence of topics creates the false impression that the baroclinic geostrophic currents and wind-driven currents like the Gulf Stream are distinctly different phenomena.

The fourth and last chapter is about the atmosphere; Spar considers the composition of air, vertical distributions of temperature and pressure, the global circulation, weather systems, climate, and the special properties of the highest portions of the atmosphere. The treatment, though brief, is imaginative, interesting, and well balanced, and it includes a historical development of important concepts. The otherwise superb exposition is blemished by an incorrect picture of the meridional circulation in middle latitudes; in this treatment the westerlies are made to owe their existence at all levels to a northward component of their motion—a picture that is illogical (there must be a return flow at some level) and in disagreement with recent evidence that the westerlies derive their kinetic energy from large quasi-horizontal disturbances in the flow which also transport heat and momentum from low to high latitudes.

Several bonus features increase the usefulness of the book. There are numerous illustrations which are imaginatively conceived and well drawn. A section on laboratory exercises presents six experiments—on time, gravity, geomagnetism, ocean currents, waves, and weather observing. Finally there are lists of references to introductory texts on the material covered in each chapter.

Despite its minor flaws, this book serves as a very satisfactory introduction to earth science, and it is a much-needed addition to the elementary texts on this subject.

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Coordination Chemistry

An Introduction to the Chemistry of Complex Compounds. Aleksander Abramovich Grinberg. Translated from the second edition (1951) by J. Rovtar Leach. D. H. Busch and R. F. Trimble, Jr., Eds. Pergamon, London; Addison-Wesley, Reading, Mass., 1962. 384 pp. Illus. $15.

Until recently, chemists unable to read Russian have had to consult Feterowsky's German translation, *Einführung in die Chemie der Komplexverbindungen* (Technik, Berlin, 1955), in order to become acquainted with Grinberg's Stalin Prize-winning classic *Vvedenie v Khimiyu Kompleksnykh Soedinenii*. But this readable translation of the second Russian edition (1951) of Grinberg's book will enable English-reading chemists to investigate for themselves the approach of the "Russian school" to coordination chemistry.

This systematic survey, suitable for use as a text or reference book in intermediate and advanced inorganic chemistry courses, covers the entire field, largely from a physicochemical viewpoint, with emphasis on "descriptive" chemistry and stereochemistry. If the author seems to stress unduly the contributions of Russian chemists, it must be remembered that for many years the major proportion of research on platinum metal complexes, which are emphasized in this book, emanated from Russia and its world-famed Platinum Institute. The experimental and theoretical foundations of coordination chemistry, from its earliest beginnings up to 1951, are here discussed in a lucid and logical manner.

The volume has a decidedly historical flavor, with numerous references to specific researches; unfortunately, only a few of these are provided with