book reviews

this later volume concerned with reaching the mature student of chemical history. It is highly recommended that both books be available.

When discussing the various facets of Dalton’s work, Greenaway does not hesitate to delve into the genesis and history of the matter at hand. This broad viewpoint makes this treatment all the more valuable. Furthermore this writer has gathered in the Notes and References the bibliographical sources of his discussions, a feature that will appeal to the serious reader. If one wishes to get behind the scene, so to speak, this is the book to have at hand.

Dalton, for reasons that Greenaway makes apparent, is far more appreciated now than he was during his lifetime; his work was not always understood by his contemporaries. The author traces in detail how Dalton’s theories aided immensely in the formation of later laws in a number of fields and though modern developments in the ideas regarding the structure of the atom have now superseded his primitive notions, the history of these developments is of prime importance. This fine book will not go out of date and will bear frequent rereading.

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Dictionary of Chemistry and Chemical Engineering (Wörterbuch der Chemie und der Chemischen Verfahrenstechnik)

Louis De Vries and Helga Koeb, with the collaboration of Joachim Thaus, (Volume I) German/English, Verlag Chemie, Weinheim/Bergstrasse, West Germany, 1970. May also be ordered from Academic Press, New York. vii + 708 pp. 17 X 24 cm. $57.

Volume II (English/German) approximately 670 pp., same price as Volume I, is scheduled for publication around September 1, 1971. If ordered as a set, a reduced price of $65 will prevail.

The principal author, Louis De Vries, is well known in the chemical world for his widely used “German-English Technical and Engineering Dictionary” (1950). He and his team have recognized the fact that the language of chemistry, chemical engineering, and allied fields is subject to accretions which require that dictionaries be kept in step with the changes. This obvious need has been kept in mind in the present instance and a month’s trial in actual translating practice has demonstrated to this reviewer the value of having at hand an up-to-date German/English dictionary compiled by experts in both the scientific and the linguistic fields.

The Foreword states that due attention has been given in the choice of the included vocabulary not only to the organic, inorganic, physical, pharmaceutical, and electrochemical fields but also to physics, biology, medicine, mathematics, mineralogy, and crystallography. Furthermore, words have been selected from recent literature on such topics as biochemistry, physiology, microbiology, biophysics, atomic physics, spectroscopy, stereochemistry, reactor technology, and electronics “thus enabling the user to cope with the more specialized problems of translation...” In the compilation of this dictionary the authors have searched through a wide range of technical literature and consulted numerous German/English and English/German dictionaries.”

In short no effort has been spared to produce an extremely useful translation aid that will be of much value to workers in a wide variety of fields. The words are printed in two columns per page; the German in bold face and its English equivalents) appear on each page so that roughly 7000 words have been provided here with their English translations. The book is

The subject matter is covered in 50 sections, which extend from simple arithmetical rules, plane and solid geometry, to topics of immediate interest to the chemist. Typical subject headings are: densities, logarithmic calculations, slide rule, mixing rules, molecular masses of gaseous elements, percentage compositions, chemical reactions, conversion of percentages into molar percents, volumetric and gravimetric analyses, gas laws and gas analysis, viscosity, electrical units, pH values, heating values, etc. The Appendix contains useful tables.

The German text is not difficult to read and in itself offers an interesting challenge to the student and teacher. This well-manufactured book (flexible covers) is reasonably priced and is highly recommended.

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Chemisches Rechnen auf elementarer Grundlage in Form einer Aufgabensammlung

Helmut Fiedler. 7th revised ed. Verlag Chemie, Weinheim/Bergstrasse, West Germany, 1970. 367 pp. Figs. and tables. 17 X 24 cm. DM 19.80 (1 mark = 27.3 cents).

This excellent book, which has gone through numerous revisions, deals with the various aspects of chemical calculations, a field that sometimes seems difficult to beginners when it is not presented in a clear logical fashion. Even the more advanced student will find here helpful hints, and many teachers will welcome not only the clear presentations but also the many problems (with their answers) that can be used when constructing quizzes and home assignments. There are 400 fully worked-out problems incorporated in the text plus 218 practice problems whose answers are given at the end of the volume. The 28 illustrations are of much value.

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The German text is not difficult to read and in itself offers an interesting challenge to the student and teacher. This well-manufactured book (flexible covers) is reasonably priced and is highly recommended.
well manufactured, easy to handle, and not tiresome to the eyes. Though not cheap, this Dictionary will be found to be a highly useful tool and the apparently extravagant initial investment will soon be forgotten.

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The Heterocyclic Derivatives of Phosphorus, Arsenic, Antimony and Bismuth
Frederick George Mann, Cambridge University. 2nd ed. Wiley-Interscience, New York, 1970. xxiii + 716 pp. Figs. and tables. 23.5 × 16 cm. $42.50.

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