

of this kind are quite unnecessary. They waste space as well as the reader's time and patience. If their inclusion is considered desirable the page-numbers should accompany them so that backward or forward search for an informative entry may be avoided. The tedious preparation of an index is frequently left to the publishers. Authors should take more responsibility for this useful part of their books.

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QUANTITATIVE ANALYSIS

Introduction to Quantitative Analysis. By SAUL B. ARENSON and GEORGE RIEVESCHL. New York: Thomas Y. Crowell Company. 1944. \$2.75.

EVERY one has known the obstreperous sort of person who always manages a resounding back-slap and pumping right hand by way of greeting. This book is written in the style of such an over-friendly fellow. The second person is used, you, the reader or student, being addressed throughout the book. The analogies used are very homely: tea mixing, the distance and rate of travel between Akron and Cincinnati and similar examples are used to solve problems. Such analogies seem inconsistent with the chapters on electrochemical and neutralization theory, students capable of mastering the latter very probably being insulted by the former. Some of the many procedures listed probably are of doubtful value to the elementary student. For example, the determination of moisture in butter, alcohol in a beverage, free fatty acid in fats and oils, $\text{Al}(\text{OH})_3$ in a medicinal preparation, vitamin C in vegetables and four volumetric methods for sulfate are listed. In all fairness, it should be stated that a sufficient number of other procedures are included, placing the above-mentioned experiments in the "optional" category.

On the positive side, the book seems to be a serious attempt to step out away from the stogy, time-honored and, in many cases, dull procedures to be found in the ordinary text on quantitative analysis. It is to be

hoped that this book exerts an influence in such a direction on the field as a whole. An excellent series of problems is included, the book is well documented, and the variety of procedures exceeds any other book of comparable scope.

The physical make-up of the book follows war-time standards. Typographical errors are relatively few, but rather crucial. For example, the student is advised to take 25 ml of 3 per cent. H_2O_2 for N/10 permanganate titration, and 0.25 M "ferroin" is recommended as indicator for ceric sulfate titrations.

Quantitative Inorganic Analysis. By I. M. KOLTHOFF and E. B. SANDELL. Revised edition. New York: Macmillan Company. 1943. \$4.50.

THIS revision of a well-known book brings it up to the times, the chapters on organic reagents, spectrophotometry, errors and precipitation phenomena being augmented and brought in line with the latest work in the field. A section on amperometric titrations has been added.

For a book with as wide a scope as this one, it seems regrettable that no mention is made of some of the modern theories of acid-base phenomena or of the fallacies inherent in ionic equations. It would seem to be less misleading to use molecular equations, obviously fallacious, than to use ionic equations containing, for example, Ti^{+4} , Fe^{+3} , Cr^{+3} , etc., which give an impression of correctness.

Many instructors will find the book too all-inclusive for a general elementary course, although it should be excellent when used as an elementary book for chemistry majors.

The physical make-up of the book is exceptionally attractive, being scarcely different from the pre-war product.

In general, the book is by far the best link between elementary and advanced quantitative analysis yet produced.

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REPORTS

ARCTIC INSTITUTE OF NORTH AMERICA

A MEETING of Canadians and Americans interested in scientific research into Arctic problems met in Montreal on September 8 and completed plans for the early establishment of an Arctic Institute of North America, first reported in *SCIENCE*¹ in May of this year. The project was initiated at a similar meeting held in New York on May 13.

¹ *SCIENCE*, 99: 2578, 423, May 26, 1944.

The thinking of the organizing group has been broadly as follows:

Wide interest in the Arctic is being expressed at present in both Canada and the United States and a strong scientific and developmental movement in Arctic North America is expected to begin as soon as the war is over.

Despite the excellent reconnaissance studies accomplished by a number of exploring expeditions,