

larger work may be expected to achieve an equal success. While the treatment of experimental material has remained unaltered, the theoretical portions of the book have been thoroughly revised by the translator with the coöperation of the author. The book is well introduced to German readers in a preface written by the broadest and surest of German teachers and investigators in chemistry.

In this preface Professor Haber points out the three standpoints from which one may view the great domain of chemical science. The first is based on the comparison of the elements by means of the periodic system, the second on the qualitative representation of substances and reactions through structure formulas, and the third on a quantitative treatment of chemical phenomena according to the fundamental physico-chemical principles. A student who becomes equally familiar with these three methods possesses an immense advantage, comparable with that given by a mastery of several languages acquired in youth. While the use of a single view-point in the teaching of elementary chemistry may be attractive to both teacher and student, yet the more enthusiastically and emphatically the teacher develops this single system, the more difficult the student finds it, when occasion arises, to adopt another point of view. As a result we have physical chemists without the structure-chemical instinct, or organic chemists who lack physico-chemical insight. So misunderstandings arise, and each group seeing only the importance of its own problems forgets that after all there is but one Chemistry, in which the different methods are equally justifiable because equally fruitful. Professor Haber especially commends the book under review for its impartial and thorough treatment of all the general methods of chemistry.

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General Chemistry for Colleges. By ALEXANDER SMITH, Professor of Chemistry and Director of General and Physical Chemistry in the University of Chicago. New York: The Century Co., 511 pp. Price, \$2.15.

The method of treatment employed by the author in his "Introduction to General Inorganic Chemistry" has proved so satisfactory to large numbers of teachers throughout the country that this shorter course in which a similar method and arrangement are employed cannot fail to find a wide field of usefulness. The theoretical chapters differ materially from those of the larger work, and some of the descriptive matter contained in the latter has been omitted. There can be no doubt that the larger text-books of inorganic chemistry which are in common use contain much more information than can be readily assimilated by the average student in his first year of chemical study. It may be questioned whether this is not still true of the shorter course contained in this book.

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