International Table of Stable Isotopes. First report of the Committee on Atoms of the International Union of Chemistry. General Secretariat, 28 rue Saint-Dominique, Paris. F. W. Aston, *Chairman*, N. Bohr, O. Hahn, W. D. Harkins, G. Urbain.

The table of stable isotopes published in English, French and German contains the atomic numbers, the mass numbers (in whole numbers only), and the relative abundance of each isotope for all the elements except numbers 43, 61, 85, and 87 and the radioactive ones 84, 86, 88, 89, and 91.

Although no discussion by the Commission accompanies the table, one must be struck, not only by the number of individual isotopes and the diversity of their distribution, but also by the evident fact that as means for detection or fractionation are refined, a much larger number of those of rare occurrence is certain to be disclosed.

S. C. LIND.

Fundamentals of Qualitative Chemical Analysis. By ROY K. MCALPINE and BYRON A. SOULE. 5½ x 8¾ in.; ix + 325 pp. New York: D. Van Nostrand Co., Inc., 1936. Price: $2.40.

This brief text can be used to excellent advantage in a course in qualitative analysis. This is not a mere condensation of the author's classic, Prescott and Johnson's *Qualitative Chemical Analysis*, but as the authors state in their preface, "An attempt has been made to provide more specific assistance than usual for the teacher and the student." Anyone who has had much experience teaching this subject will acknowledge that their aim has been attained.

Among the meritorious new features of this text, particularly from the pedagogic point of view, are two that are outstanding: (1) A chapter devoted to study aids. Material is given here to show the student how and what to study. Fourteen questions of the usual type on group I are given, with brief but comprehensive answers. The student may follow a similar plan with the other groups. (2) A splendid summary and review at the end of each group separation.

An interesting and probably reasonable departure from the usual procedure, to quote from the preface, is: "placing the arsenic division of group II in a chapter by itself and postponing its introduction until the other groups have been presented in detail. In a scheme arbitrarily limited in scope, there is a definite advantage in using the arsenic division to illustrate the increase in complexity of procedure that will normally be required when the list of metals is expanded."

The first four chapters are devoted to (1) review material, which is essential for an understanding of qualitative analysis, (2) chemical arithmetic, (3) formulas and equations, (4) ionization theory, including common-ion effect, solubility product, hydrolysis, etc. The remaining chapters include the usual ones,—one on laboratory technic, a separate chapter on each group or division, including common compounds, reactions of the ions, separations, relation to other groups, equations, in the case of metals a summary and review, problems and laboratory exercises; an excellent appendix with useful reference tables is provided.

The authors do not employ the more modern meanings of acid and base as proposed by Brönsted and by Lowry.

The physical make-up of the book is in keeping with the contents. The book is to be recommended.

LILLIAN COHEN.

Introduction to Theoretical Chemistry. By W. B. MELDRUM and F. T. GUCKER, JR. 614 pp. New York: American Book Company, 1936. Price: $3.50.

In the preface to this book the authors state that their purpose is "to outline a