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A manual of chemistry

Physical and inorganic chemistry

Watts, Henry 1883

Preface

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PREFACE.

This work, founded on the well-known "Manual of Chemistry" of the late Professor Fownes, is intended to offer to the student commencing the study of Chemistry, an outline of the general principles of that science, and a history of the more important among the very numerous bodies which Chemical Investigations have made known to us. It has no pretensions to be considered a complete treatise on the subject, but is intended to serve as an introduction to larger and more comprehensive systematic works, and especially to prepare the student for the perusal of original memoirs, which, in conjunction with practical instruction in the laboratory, can alone afford a real acquaintance with the spirit of research and the resources of Chemical Science. It is divided into two volumes—the first relating to Chemical Physics and Inorganic Chemistry, and the second to Organic Chemistry.*

The present volume commences with a short sketch of the more important Elementary Bodies, the principal Laws of Chemical Combination, and the representation of the constitution and reactions of bodies by Symbolic Notation.

This introduction is followed by a section on Chemical Physics, including the determination of Densities, the mechanical properties of Gases, and the chief phenomena of Heat, Light, Electricity, and Magnetism, an elementary knowledge of which affords great assistance in the study of chemical reactions.

^{*} Chemistry of Carbon-Compounds, or Organic Chemistry, 12th Edition, 10s.

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The next section contains a description of the Nonmetallic Elements, and the more important compounds which they form with one another; and this is followed by a discussion of the general principles of Chemical Philosophy. In this part of the work the Laws of Chemical Combination and Decomposition, and the principles of the Atomic Theory, briefly noticed in the introduction, are more fully developed.

The last section is devoted to the Chemistry of the Metals.

The Weights and Measures used are those of the French Decimal System. Temperatures are expressed in the Centigrade Scale, except where the contrary is stated. A comparison of the Centigrade and Fahrenheit Scales is given at the end of the volume.

HENRY WATTS.

LONDON, October, 1883.