

# **INTRODUCTION TO INORGANIC CHEMISTRY**

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Introduction to Inorganic Chemistry by Wm. Geo. Valentin

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**WM. GEO. VALENTIN**

**INTRODUCTION TO  
INORGANIC  
CHEMISTRY**



INTRODUCTION

TO

INORGANIC CHEMISTRY

*With 82 Engravings on Wood*

BY

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## P R E F A C E.

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THE encouraging reception which my Laboratory Text Book met with in this country, as well as in America, and the experience which I since have had of its working with a large class of chemical students, have induced me to render the book still more generally useful by publishing it in two parts, and by somewhat enlarging the first part. I am in hope that this first volume may now take rank as a suitable text book for elementary classes preparing for the chemical examinations which are held annually under the Science and Art Department. The admirable list of experiments, sketched out by Dr. Frankland, in the Syllabus issued by the Department, will be found interwoven throughout the text. This I was able to do without deviating from the original plan of the book, which consists mainly in deducing the fundamental laws of chemistry from experimental facts, and thus to lay a sound foundation for qualitative and quantitative analyses. From my own laboratory experience, I can confidently recommend this experimental method of teaching. Large classes of students can be instructed with comparative ease, and theoretical difficulties, which are usually overcome only by a long course of chemical study, may be grappled with at the earliest stages even. I have found the theory of atomicity of chemical elements remarkably conducive to a quick and thorough understanding of chemical changes. Graphic illustrations, I need scarcely remark, may be discarded as soon as they have fulfilled their purpose, and as soon as the pupils have become familiar with the use of the constitutional symbolic formulae employed in this work.

The Questions and Exercises, placed at the end of most of the chapters, constitute an essential feature of the book. They will be found of great use if the written answers are examined by the teacher, and any shortcomings discussed with the pupils. This entails, no doubt, much labour, but it forms, in my experience, the only safe means of controlling and rendering the laboratory teaching thoroughly efficient.

Most of the experiments can be readily performed by beginners, if the directions given in the text are attended to, others again, are perhaps more suited to the lecture-room. The selection may, however, be safely left to each teacher.

When the chemical instruction in schools or elementary science classes has, of necessity, to be conducted by lectures only, this little book will, when placed in the hands of the pupils, also form a useful companion and guide for private study.

The final chapter contains a brief summary of all the previous experimental facts, classified under four chemical changes, a summary which, I trust, will recommend itself to the practical teacher.

In conclusion, I have to thank Mr. A. J. Greenaway, Junior Assistant in the Laboratory, for his kind help in preparing a number of new wood-cuts.

CHEMICAL LABORATORIES,  
SCIENCE SCHOOLS,  
SOUTH KENSINGTON,  
Oct. 18, 1872.



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