

**INTRODUCTION TO CHEMICAL  
ANALYSIS FOR BEGINNERS:  
FROM THE SIXTH GERMAN  
EDITION OF PROF. DR. FR.  
RÜDORFF**

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**CHAS. B. GIBSON & F. MENZEL**

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FROM THE SIXTH GERMAN  
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DR. FR. RÜDORFF**



INTRODUCTION  
TO  
CHEMICAL ANALYSIS  
FOR BEGINNERS

From the Sixth German Edition

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The thanks of the Translators are due to Prof. Rüdorff for permission to translate and to adapt with such additions as seemed proper, and to Prof. Jas. H. Shepard for the use of the table, "The Natural Classification of the Elements," with explanatory notes.

## INTRODUCTION.

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It is generally conceded that chemistry cannot be properly learned by the student except through the medium of individual experimental work in the laboratory. Lectures and recitations serve to present the fundamental laws of general chemistry and chemical philosophy and furnish a splendid field for experiments on an elaborate scale to illustrate these laws; but only work in the laboratory will familiarize the student with chemical changes and the properties of the elements and their compounds.

Beginners usually reason from the specific to the general, hence a clear understanding of the specific properties of a limited number of chemical elements and their compounds will lay a better foundation for an accurate and broad knowledge of the science than a more extended but less systematic course of study.

This little book originally designed for Prof. Rüdorff's pupils has met with such marked favor in Germany, having passed rapidly through six large editions, that the translators have been induced to offer it for the consideration of the American teacher and pupil, believing it fully fills the requirements, as herein set forth. As a guide to the student in the introductory study of the chemistry of the elements and their compounds, the popularity this work has attained at home is proof enough of its excellence.

The special feature of the book is the originality the author displays in presenting to the student chemical changes in a manner at once tangible and interesting. Pro-