



METADATA

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Other Titles: Laboratory Exercises in General, Inorganic, Analytical, and Organic Chemistry

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Abstract

The book describes basic laboratory exercises in the subjects of General and Inorganic Chemistry, Quantitative Analysis and Organic Chemistry. It is aimed at students whose main subject of study is Chemistry. Including different degrees of difficulty exercises, it can be used for studies requiring a different degree of depth in Chemistry. The book is divided into sections dealing with laboratory exercises in various fields of Chemistry. In the first part, there are laboratory exercises on the properties of elements and compounds, the study of aqua solutions, such as the preparation of solutions and electrolytic solution's properties, and the study of chemical kinetics and equilibrium. Next, volumetric analysis exercises are

described such as acid-base, complexometric and redox titrations. Finally, basic laboratory techniques for the purification of chemical compounds (recrystallization, distillation, extraction) and Organic Chemistry exercises are described. In addition, exercises for familiarization with the basic spectroscopic techniques of visible-ultraviolet (UV-VIS) and infrared (IR) absorption are described. Each laboratory exercise includes a sufficient theoretical part so that each exercise constitutes an independent and complete learning object. The theoretical part briefly describes the necessary theoretical background of the exercise, followed by a detailed experimental section. Each exercise is completed with assessment tests.

