
Laboratory Manual for First Year College Chemistry. *John W. Barker and Paul K. Glasoe.*
McGraw-Hill Book Co. New York. 1951. xi+186 pp. \$3.00.

Here is a first year college chemistry laboratory manual designed for a full year's use, assuming six hours of laboratory time each week.

The manual is divided into two main sections. The first consists of twenty well-chosen, carefully written, and clearly illustrated exercises. Each exercise, in addition to instructional matter, contains numerous questions and problems to further emphasize the principles followed. There is a nice balance between experimentation time and writing time required from the student. In addition, an *Addendum* at the conclusion of every chapter contains information to be studied or omitted as the individual instructor or student sees fit.

The use of ionic equations and the principles of oxidation-reduction are particularly emphasized whenever possible.

In the second part of the manual, the authors have devoted their efforts to qualitative analysis, following the usual scheme which involves the use of hydrogen sulfide.

In each group there are a series of preliminary tests with accompanying notes. The procedures for the groups appear in block outline form both for macro and semi-micro analyses. Special notes on each analysis follow these procedures. At the end of each group are a series of equations and questions.

The anion analyses, too, follow the usual pattern of dry tests, group separations and individual tests.

The appendix contains a detailed list of solutions for use in the qualitative scheme, a very helpful addition for people in charge of chemical supply rooms.

This manual should be quite worth while in any first year course of the type originally mentioned. It appears easily adaptable to almost any of the popular texts today.

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