

arrangement of the experiments is excellent. Each experiment is divided into four parts: (a) principles, (b) procedure, (c) notes explaining the various steps, (d) questions and problems. Answers to the problems are given in the appendix, which also includes four place logarithms and some gravimetric factors.

In the theoretical part one may feel that the discussion of oxidation-reduction potentials is not entirely clear, and in the experimental section the reviewer feels that the directions for the determination of magnesium and of barium sulfate could be improved by the use of a Gooch crucible. One rather obvious misprint has slipped through in the directions for dehydrating silica. It is indicated that this may be done by heating at 105-110°, where 1100° would be nearer the proper temperature. JOHN E. VANCE.

Chemical Kinetics; by FARRINGTON DANIELS. The George Fisher Baker Non-Resident Lectureship in Chemistry at Cornell University. Vol. XVII. Pp. viii, 273; 41 figs. Ithaca, New York, 1938 (Cornell University Press, \$3.25).—The first three chapters of this book deal with the general principles and theories of chemical kinetics. This is followed by a section in which particular types of reactions are discussed. A chapter on homogeneous gas phase reactions is followed by one on reactions in solution. This section is concluded with a chapter on photochemistry and one on reactions which are activated by electrical methods such as alpha particles, electrons and X-rays. The final section treats three subjects which have been extremely useful in understanding the mechanism of reactions. One chapter each is devoted to infrared spectroscopy, calculation of heats of activation and absolute rates from quantum mechanics and on isotopic tracers.

Throughout the book, Professor Daniels has used illustrative examples from the researches of his own laboratory. These special cases are discussed in complete detail from a critical standpoint. Additional literature references and brief summaries of other reactions are appended to several of the chapters.

The book is very readable and heartily recommended to anyone who wishes an authoritative discussion of modern chemical kinetics

GEORGE M. MURPHY.

GEOLOGY.

Northernmost Labrador Mapped from the Air; by ALEXANDER FORBES. Pp. xix, 234; frontispiece, 177 figures, 6 maps, brochure. New York, 1938 (American Geographical Society, Special Publication No. 22, \$4.00).—As has been the case with many expeditions to remote regions, the original incentive in the present