

The Mechanism of Reaction between Thionylaniline and Organomagnesium Halides, by Henry Gilman and Harry L. Morris.

P. 2402. The first part of the last sentence of Ref. 15 should read: "Benzene sulfonanilide melts at 112°, but..."

Optical Rotation and Atomic Dimension. VI, by D. H. Brauns.

P. 2786. In line 30, instead of "pseudo-cellobiose," (a name used by the author before its full identification), read "4-glucosido-mannose."

The Alkylation of Hydroxynaphthoquinone. I. Ortho-Ethers, by Louis F. Fieser.

P. 2922. In the title, in place of "ortho-ethers," read "oxygen ethers."

P. 2927. In the first line following the formulas, instead of "new," read "now."

NEW BOOKS

Quantum Principles and Line Spectra. By J. H. VAN VLECK, Assistant Professor of Physics, University of Minnesota. Bulletin of the National Research Council, Vol. 10, Part 4, 1926. 316 pp. 13 figs. 25 × 17 cm. Price \$3.00.

This bulletin presents the theoretical and mathematical aspects of the quantum theory of atomic spectra, the experimental data being referred to only as they support or disagree with the theoretical conclusions. Chapter 1 gives a brief review of classical theory. Chapters 2-8, inclusive, present the fundamental postulates of the quantum theory and the statement of the quantum conditions, with special emphasis on the correspondence principle form of these conditions. The author gives the successful application of these conditions to hydrogen and ionized helium atoms and their Stark and Zeeman effects, and discusses the attempts to apply them to atoms of more than one electron. Chapters 9 and 10 deal with the intensities of spectral lines and the polarization and dispersion of light from the standpoint of the quantum theory. The more mathematical part of the theory is collected in Chapter 13 under the title of the mathematical technique of the quantum theory. The remaining two chapters are devoted to the anomalous Zeeman effect and the recent work on the Compton effect and light quanta.

This bulletin gives a very complete and well written review of what we shall probably call "classical" quantum theory. It brings the theory up to the time of the introduction of a true quantum mechanics. The references are complete and in addition to its desirability for the clear presentation of the entire subject, it is well worth its cost for the references to the literature which it contains.

H. C. UREY

Colloid and Capillary Chemistry. By HERBERT FREUNDLICH, Ph.D., Professor at the Kaiser Wilhelm Institute for Physical Chemistry, Berlin. Translated from the third German edition by H. STAFFORD HATFIELD, B.Sc., Ph.D. E. P. Dutton and Company, 681 Fifth Avenue, New York City, 1926. xvi + 883 pp. 157 figs. 15.5 × 26 cm. Price \$14.00.

This translation of Freundlich's "Kapillarchemie" merits a hearty welcome. It makes available to the English and American reader the most