

this reaction polymerization takes place with the formation of a naphthalene compound. 'The Relation of the Taste of Acids to their Degree of Dissociation': By T. W. RICHARDS. The relative strength and extent of dissociation of dilute acid solutions can be determined approximately by the sense of taste. 'Note on Fehling's Solution': By J. B. TINGLE. The ordinary solution containing tartaric acid is reduced even at the ordinary temperature if it has been partly neutralized with the free mineral acids and also decomposes spontaneously if allowed to stand. It is, therefore, necessary to use a freshly prepared solution. If, however, glycerine and ammonium hydroxide are used, instead of the tartaric acid salt, a solution is obtained which is perfectly stable. 'Action of the Anhydride of Orthosulphobenzoic Acid on Dimethyl- and on Diethylaniline': By M. D. SOHON. Formation of the corresponding aniline sulphonphthaleins. 'The Molecular Weight of Lactimide': By G. M. RICHARDSON and M. ADAMS. The evidence speaks in favor of the double formula. 'The Action of Sodium Ethylate upon α , β -Dibromhydrocinnamic Ester, Citradibrompyrotartaric Ester, and α , β -Diorompropionic Ester': By V. L. LEIGHTON. 'On some Bromine Derivatives of 2, 3,—Dimethylbutane': By H. L. WHEELER. 'Phosphatic Chert': By J. H. KASTLE, J. C. W. FRAZER and GEO. SULLIVAN. Analyses of phosphatic limestone. 'On the Effect of Light on the Combination of Hydrogen and Bromine at High Temperatures': By J. H. KASTLE and W. A. BEATTY. Light causes the combination of hydrogen and bromine at 196°.

J. ELLIOTT GILPIN.

The *Zeitschrift für den physikalischen und chemischen Unterricht* (Berlin, Julius Springer) deserves to be better known than it is by the teachers in our secondary schools. The ten volumes now completed are full of valuable matter bearing upon the teaching of physical sciences. In the first, January, number of the eleventh volume, the editor, Dr. Poske, reviews the history of the journal, reaffirms strongly his frequently expressed opinion of the humanistic character of all proper general physical instruction, and urges teachers to make

less of theory and hypothesis and more of experiment and experience. Then follow some notes by that wonderfully bright and prolific writer, Professor Mach, of Vienna, one of the associate editors, upon the 'Historical Development of Optics.' Dr. Strecker, of Berlin, writes upon theory and practice in the construction of rheostats for small physical laboratories. Then follows an article upon the nature of visible water-vapor and its experimental production before a class. Then we have Professor van't Hoff's paper of last summer before the Scientific Congress in Berlin on 'Stereo-chemistry.' Descriptions of new apparatus and experiments, historical notes, courses and methods of instruction, technics and mechanical praxis, new books, reports of scientific societies, and astronomy for the year, with maps, complete the volume.

E. A. STRONG.

YPSILANTI, MICH.

NEW BOOKS.

Leçons sur l'intégration des équations aux dérivées partielles du second ordre à deux variables indépendantes. E. GOURSAT. Paris, A. Hermann. 1898. Vol. II. Pp. 344.

Peneroplis, eine Studie zur biologischen Morphologie und zur Speciesfrage. FRIEDRICH DREYER. Leipzig, Wilhelm Engelmann, 1898. Pp. vi+119+5 plates. 10 Marks.

Pasteur. PERCY FRANKLAND and MRS. PERCY FRANKLAND. New York, The Macmillan Co. Pp. vi+224. \$1.25.

Angewandte Elektrochemie. FRANZ PETERS. Wien, Pest, Leipzig. A. Hartleben's Verlag. Vol. 2. 1st part, pp. xi+248; 2nd part, pp. xii+215.

The Arrangement of Atoms in Space. J. H. VAN'T HOFF. Second revised and enlarged edition; translated and edited by Arnold Eilvart. London, New York and Bombay, Longmans, Green & Co. 1898. Pp. vi+211.

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Outlines of Descriptive Psychology. GEORGE TRUMBULL LADD. New York, Charles Scribner's Sons. 1898. Pp. xi+428. \$1.50.