

At the optimum of invertase action, the salt effect of the sodium chloride seems to approach zero, and as we depart either side from the optimum, we get an increasing salt effect.

The use of buffers (tampons) for regulating the concentration of hydrogen ion introduces a certain salt effect. The most satisfactory region for using buffers in invertase velocity measurements is in the neighborhood of the optimum zone where the salt effect is a minimum.

In the region of enzyme activity it is necessary to measure the concentration of hydrogen ion, and it is not permissible to calculate it from the molarity of acid used.

The addition of sodium chloride to solutions of hydrochloric acid causes an increase in the concentration of hydrogen ion as measured by the electromotive force method and by the hydrolysis of cane sugar solutions.

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CORRECTION.

The Dissociation of Carbon Oxy-sulfide.—Through the kindness of Professor J. Sakurai, of the University of Tokio, my attention has been called to an important error in sign in the recent paper by Lewis and Lacey.¹ There it is stated, "It is evident that with diminishing temperature the equilibrium is shifted in favor of CO." This should have read "with increasing temperature." Consequently, the van't Hoff equation gives for the heat of formation of COS from liquid sulfur and carbon monoxide not -11000 but $+11000$ calories. For this reaction Berthelot found -4000 and Thomsen $+10000$ cal. Our value therefore corroborates that of Thomsen, and we may now feel safe in using this value in the calculation of the free energy of the reaction at standard temperature. This calculation will be made in another place. GILBERT N. LEWIS.

NEW BOOKS.

Laboratory Manual to Accompany "A Course in General Chemistry," By WM. McPHERSON AND WM. E. HENDERSON. Ohio State University. Pp. v + 140. Ginn and Co., 1915. Price, 60 cents.

The role this manual plays is well stated in the preface by the authors: "For one who sets about the task of arranging an experimental course for the beginner, there remains little opportunity for originality or invention. His problem is rather one of selection. Accordingly, this laboratory manual lays no claim to originality, either in method or in content." When used in connection with the text-book, by the same authors, it proves to be a fairly satisfactory guide for an elementary course. The introductory experiments are not well chosen. For example, the student infers from the experiment that when salt is dissolved in water the change

¹ THIS JOURNAL, 37, 1981 (1915).