

2. Furthermore, the results obtained in the oxidation of *d*-sorbitol show that this hexitol is oxidized through the intermediate formation of *d*-glucose rather than *l*-gulose. Were the latter aldohexose involved wholly or in part, the curve for oxalic acid should bear some resemblance to that for *d*-galactose under the same conditions.<sup>2b</sup>

3. The points of view given in Paragraphs 1 and 2 of this summary find confirmation in the literature of this field of work. When Fenton<sup>5</sup> oxidized *d*-mannitol, *d*-sorbitol, and dulcitol with hydrogen peroxide in the presence of ferrous sulfate he obtained osones which were converted into the osazones of *d*-mannose, *d*-glucose and *d*-galactose, respectively. Fischer<sup>6</sup> treated *d*-sorbitol with bromine water and obtained a sugar which formed glucosazone. He obtained a sugar from mannitol which gave the same osazone. More recently Votocék and Krauz<sup>7</sup> have shown that aqueous solutions of mannitol are oxidized to a mixture of mannose and fructose with nitrous acid fumes. This is exceptionally interesting because it shows the stability of the primary alcohol group even under the acid condition used by these investigators.

COLUMBUS, OHIO

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## ADDITIONS AND CORRECTIONS

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The Adsorption of Arsenious Acid by Hydrous Aluminum Oxide, by John H. Yoe. Pp. 2393 and 2394. In Figs. 1 and 4, the ordinates should read, "0.1, 0.2, 0.3," etc., instead of "10, 20, 30," etc.

1925, VOLUME 47

The Solubility of Ferrous Hydroxide and its Effect upon Corrosion, by W. G. Whitman, R. P. Russell and G. H. B. Davis.

P. 74. In lines 25 and 26, instead of "formation of ferrous hydroxide from the elements," read "formation of ferrous hydroxide from iron, oxygen and water."

In lines 27 and 28, in place of " $-(I/N_a + I/N_b) \times 0.0591 \log K$ ," read " $-(0.0591/2) \log (Fe^{++})(OH^-)^2$ ," and in place of " $-1.5 \times 0.0591 \times (-4.4)$ ," read " $-(0.0591/2) \times (-13.5)$ ."

P. 77. In Fig. 9, the word "Initial" should be inserted, so that the abscissas will read, "Initial *P<sub>H</sub>* of NaOH solutions."

The Activity Coefficients of Hydrochloric Acid in Solutions of Ethyl Alcohol, by Herbert S. Harned and Maurice H. Fleysler.

P. 89. In line 18, instead of "log  $\gamma$  is inversely proportional to the dielectric constant," read "log  $\gamma$  is inversely proportional to the three-halves power of the dielectric constant." Equation 2 should read, " $\log \gamma_1 / \log \gamma_2 = (D_2/D_1)^{3/2}$ ." If, according to the following paragraph,  $1/D^{3/2}$  had been plotted instead of  $1/D$ , the values of  $\gamma_2$  would have been about 1-2% higher than those given.

<sup>5</sup> Fenton, *J. Chem. Soc.*, 75, 9 (1899).

<sup>6</sup> Fischer, *Ber.*, 23, 3686 (1890).

<sup>7</sup> Votocék and Krauz, *Z. Zuckerind. Bohmen*, 43, 577 (1919).