

In the iodine method three errors were encountered: (1) that due to incomplete reaction, which is avoided by the addition of disodium phosphate, (2) nitrite formation which occurs under all the conditions investigated and corresponds to a positive error, and (3) absorption of oxygen of air, which corresponds to a negative error. An empirical method was developed for obtaining theoretical results, but it was shown to be correct only on account of compensation of errors (2) and (3).

Hydroxylamine is oxidized mainly to nitrate by hypochlorous acid solution in excess.

In a disodium monohydrogen phosphate solution thiosulfate can be oxidized quantitatively to sulfate by iodine. The reaction is rapid at 70°.

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NOTES.

Corrections.—“*A New Theory Relating Constitution to Taste.*” The following corrections should be made in the article which appeared under this title in the June issue:¹

P. 859, first formula on third line, $\text{CO}_2\text{H}.\text{CHNHCH}_3\text{-(H)}$, and first formula on 5th line, $\text{CH}_2\text{OH}.\text{CH}_2.\text{CHOH}.\text{(H)}$. The (H) should be omitted in both cases.

P. 859, in line 7, formula $\text{CHONO}.\text{(H)}$ should read $\text{CH}_2\text{ONO}.$

P. 860, classification of auxoglucs. Formula given under (3), $\text{C}_n\text{H}_{2n+10}$ should read $\text{C}_n\text{H}_{2n+1}\text{O}$, and formula under (4), $\text{C}_n\text{H}_{2n+10n}$ should read $\text{C}_n\text{H}_{2n+1}\text{O}_n.$

P. 861, formula of serine, $\text{CH}_3\text{OH}_2\text{CHNH}_2\text{CO}_2\text{H}$, should read $\text{CH}_2\text{OH}.\text{CHNH}_2.\text{CO}_2\text{H}.$

P. 663 and 664. In Tables I, II and III, last line, the formula of the auxogluc should read in each case $\text{C}_n\text{H}_{2n+1}\text{O}_n.$

P. 867, under (2) the fifth formula, $\text{C}_{\text{H}_1^x}^{\text{H}_2^x}$, should read $\text{C}_{\text{H}_1^x}^{\text{H}_1^x}$.

P. 867, (3), the first formula under (b), $\text{C}_n\text{H}_{2n+1}\text{O}$, should read $\text{C}_n\text{H}_{2n+1}$, and the first formula under (d), $\text{C}_n\text{H}_{2n-1}\text{O}_n$, should be $\text{C}_n\text{H}_{2n+1}\text{O}_n.$

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Correction.—The omission of certain lines from Table III of my paper, in the July JOURNAL,² on “The Activities of the Ions of Strong Electrolytes” makes the material there presented difficult for a reader to interpret. The activity ratios (Cols. 9 and 10) refer to the pairs of concentrations of hydrochloric acid and potassium chloride given in Cols. 4 and 5. A correct version of the table appears below.

¹ THIS JOURNAL, 41, 855 (1919).

² *Ibid.*, 41, 1089 (1919).

TABLE III.

Sub- stance.	Type of cell.	Temp.	Concentrations.		E. M. F. of cell.	Trans. No. of cation.	Activity ratios a_1/a_2 for		
			C ₁ .	C ₂ .			Cl ⁻ .	H ⁺	
HCl	B	18°	0.006686	0.001665	-0.05614	0.833	3.82	3.84	J.
KCl	B		0.006700	0.001670	-0.03330	0.495			J.
HCl	B	18°	0.008315	0.001665	-0.06487	0.833	4.70	4.74	J.
KCl	B		0.008329	0.001670	-0.03844	0.495			J.
HCl	B	18°	0.01665	0.001665	-0.09235	0.833	8.86	9.38	J.
KCl	B		0.01670	0.001674	-0.05434	0.496			J.
HCl	B	18°	0.03330	0.003329	-0.09162	0.833	8.76	9.14	J.
KCl	B		0.03347	0.003347	-0.05403	0.496			J.
HCl	A	25°	0.05	0.005	-0.11234	.....	8.64	9.16	N. and E.
KCl	A		0.05	0.005	-0.11085	.....			M. and P.
HCl	A	25°	0.1	0.01	-0.1116	.....	8.33	9.23	N. and E.
HCl	A		0.1	0.01	-0.1117			L. B. S.
KCl	A	25°	0.1	0.01	-0.1089			M. and P.
KCl	B		0.1	0.01	-0.0540	0.495			M. and P.

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[CONTRIBUTION FROM THE CHEMICAL LABORATORY OF HARVARD UNIVERSITY.]

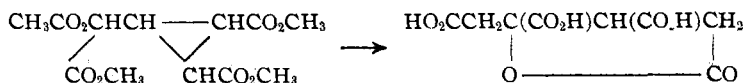
STUDIES IN THE CYCLOPROPANE SERIES.

VII. NITROCYCLOPROPANES.

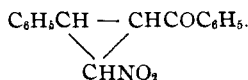
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Esters of cyclopropane acids that have either two carboxyl groups or a carboxyl and a ketonic group in combination with one of the ring carbon atoms are almost invariably transformed into open chained compounds by alcoholates, and not infrequently the same change is brought about by concentrated alkalis.¹ Esters of other cyclopropane acids rarely undergo this reaction, the one case known being that reported by Buchner and Miller.²



In connection with an investigation of the mechanism of this reaction it became desirable to examine the behavior of a cyclopropane derivative which is so constituted that it can form a metallic derivative without opening the ring. The substance selected for the purpose is benzoyl-phenyl-nitrocyclopropane.

¹ Ber., 36, 3776 (1903); THIS JOURNAL, 39, 1406, 1700, 2404 (1917).² Ber., 27, 871 (1894).