

The corresponding heat quantities (Table VII) for 0.01  $m$   $\text{CdSO}_4$  are

$t$ , °C.	$C_p$	$-\Delta H$	$\bar{L}_2$
10	-264	7401	528
15	-207	8580	618
20	-149	9471	748

These minor corrections do not affect the conclusions drawn.

Due to failure to change the sign of even (2nd) differences in the Newton formula used in interpolating for 25° an error entered the footnote of Table III, page 4347. We give the correct calculations which agree with the empirical formula of Table VI, page 4350. For  $m = 0.000$  to  $m = 0.02$  the differences are +0.39, +0.22, +0.33, +0.44, +0.38, +0.38, +0.10 mv. The agreement between the measurements of 1931 and those of 1933 is consequently not as good as indicated in the footnote. It seems likely that this difference arises either in the crystalline state of the  $\text{PbSO}_4$  preparation or the 2-phase Pb amalgam. Since only measurements of the 1933 series were employed in the calculation of the thermal quantities this difference does not affect the results reported."—W. GEORGE PARKS.

**Studies of Polymerization and Ring Formation. XXII. Stereochemistry and Mechanism in the Formation and Stability of Large Rings.** By Wallace H. Carothers and Julian W. Hill.

Page 5049. In line 3 read "diameter" instead of "radius."—WALLACE H. CAROTHERS.

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**The Temperature Coefficients of the Electromotive Force of the Cell  $\text{Cd}(\text{metal}), \text{CdSO}_4, \text{Cd}(\text{satd. amalgam})$ .** By W. George Parks and Victor K. La Mer.

Page 90. "Professor H. M. Spencer informs us that the e. m. f. value of Horsch (0.0534) referred to on page 90 is for an unsaturated (4.6%,  $N_2 = 0.0792$ ) amalgam at 25°. Using the results of Hulett and De Lury [THIS JOURNAL, 30, 1805 (1908)] to correct this value to the saturated amalgam ( $N_2 = 0.0953$ ) we obtain 0.05055 which is also in good agreement with the value given by Getman (0.05047), Hulett (0.0505) and the authors (0.05045)." —W. GEORGE PARKS.

**The Isotopic Composition of Sea Water.** By Edward Smith Gilfillan, Jr.

Page 408. Paragraph one of the Summary should read "...specific gravity of 1.0000023  $\approx$  0.0000002 at 0° compared with pure water..."—E. S. GILFILLAN, JR.

**Molecular Refraction and Dispersion, in the Ultraviolet, of Salts and of Ions in Water Solution.** By George S. Forbes and Hervey B. Elkins.

Page 518. In col. 2, line 13, add, "The images with the quartz plates were less sharp, and the intersections less clearly defined, but no systematic errors in  $R$  were introduced."

Page 521. In the middle of col. 1 the second equation should read

$$R = R_0 + \frac{C}{\bar{v}_1^2 - \bar{v}^2}$$

GEORGE S. FORBES AND HERVEY B. ELKINS

**The Temperature Variation of Ionization Constants of Weak Electrolytes.** By Herbert S. Harned and Norris D. Embree.

Page 1052. "In this communication on the temperature variation of ionization constants of weak electrolytes the values of  $\theta$ , the temperature of the maximum ionization, and of  $K_m$ , the maximum value of the ionization constant, were incorrect for the acid and base dissociation of alanine. The correct values are:

	$\theta$	$10 + \log K_m$
Alanine ( $K_A$ )	43.3	7.677
Alanine ( $K_B$ )	89.0	6.079

These are derived from the values of  $pK_{a_1}$  and  $pK_{a_2}$  determined by Nims and Smith [*J. Biol. Chem.*, 101, 401 (1933)] and the values of  $K_w$  determined by Harned and Hamer [THIS JOURNAL, 55, 2194 (1933)] since  $\log K_A = -pK_{a_1}$ , and  $\log K_B = \log K_w + pK_{a_1}$ .

Using these correct values of  $\theta$  and  $\log K_m$ , the approximate equation

$$\log K = \log K_m - 5.0 \times 10^{-5} (t - \theta)^2$$

which we had previously obtained holds within experimental error for both  $\log K_A$  and  $\log K_B$ ."—HERBERT S. HARNED.

**The Potentials of Cells in Liquid Ammonia. The Thermodynamic Constants of the Ammino Zinc Chlorides and of Zinc Chloride.** By Norman Elliott and Don M. Yost.

Page 1057. "Due to an arithmetical error  $\text{ZnCl}_2 \cdot 10\text{NH}_3$  was stated to be the solid phase in the cell. Actually the solid phase was  $\text{ZnCl}_2 \cdot 6\text{NH}_3$ , and equations (1) to (5) must be modified accordingly. This change affects the thermodynamic constants only and not the e. m. f.'s."

Page 1059. Eq. (6), for  $\Delta F_{298}^\circ = -2200$  cal. read  $\Delta F_{298}^\circ = -6900$  Cal. The fugacity of  $\text{NH}_3(\text{g})$  was taken as 18.2 atm.

Page 1060. In line 5 of paragraph 2 read "-20,420 cal." for "-11,600 cal." Also substitute new Table II.

TABLE II

THE THERMODYNAMIC CONSTANTS OF THE AMMINO ZINC CHLORIDES AND ZINC CHLORIDE

Substance	$\text{ZnCl}_2 \cdot 10\text{NH}_3$	$\text{ZnCl}_2 \cdot 6\text{NH}_3$	$\text{ZnCl}_2 \cdot 4\text{NH}_3$
$\Delta F_{298}^\circ$ cal.	-151,030	-142,290	-132,230
$\Delta H_{298}^\circ$ cal.	-323,000	-250,840	-206,880
$S_{298}^\circ$ cal./deg.	187.3	117.6	91.8
Substance	$\text{ZnCl}_2 \cdot 2\text{NH}_3$	$\text{ZnCl}_2 \cdot \text{NH}_3$	$\text{ZnCl}_2$
$\Delta F_{298}^\circ$ cal.	-119,860	-102,710	-87,800
$\Delta H_{298}^\circ$ cal.	-161,300	-130,910	-99,550
$S_{298}^\circ$ cal./deg.	63.6	34.5	23.7