Page 6064. In col. 1, lines 14–15 from the end, transpose the "Calcd." and "Found" analyses for  $C_{16}H_{22}O_4$ .

Page 6065. In col. 1, lines 24–25, transpose the analyses for Allotetrahydrohelenalin,  $C_{15}H_{22}O_4$ , to read "Calcd.: C, 67.64; H, 8.33. Found: C, 68.49; H, 8.03."—WERNER HERZ.

## 1960, Vol. 82

W. F. Giauque, E. W. Hornung, J. E. Kunzler and T. R. Rubin. The Thermodynamic Properties of Aqueous Sulfuric Acid Solutions and Hydrates from 15 to 300°K.

Page 66. In Table II, the melting point of  $H_2SO_4$  erroneously given as 283.46°K should be 283.52°K. All other thermodynamic values given for the melting point are correct.—W. F. GIAUQUE.

James L. Dye, M. Patricia Faber and David J. Karl. Transference Numbers and Conductances of Multivalent Salts in Aqueous Solution: Zinc Sulfate and Zinc Perchlorate."

Page 315. The transference number data in Table I were not properly corrected for solvent conductance and volume change and hence the true values are slightly different from those given. The least-squares equation through the corrected points is

$$T_+ = 0.3900 - 0.0628 N^{1/2}$$

with a standard deviation of 0.07% for the ten determinations.

Page 317. The calculated association constants in Table IV (which were included to show *lack* of fit rather than verification of association) are incorrect, and a corrected Table IV is given.

TABLE IV Association Constants Calculated for  $Zn(ClO_4)_2$ 

$N \times 10^4$	$\lambda^{\circ}_{Z_{B}++} = 56$	$\lambda_{2n++} = 59$
0.556	206	998
2.530	120	300
8.063	55	121

-JAMES L. DYE.

Alberto Ercoli and Rinaldo Gardi.  $\Delta^4$ -Keto Steroidal Ethers. Paradoxical Dependency of their Effectiveness on the Administration Route.

Page 747. In col. 1, line 17, for "m.p. 181–183°" read "m.p. 184–186°." In line 18, for "[α]p -83°" read "[α]p -67.5°." In line 20, for "m.p. 136–137°" read "m.p. 142– 143°." In col. 2, line 36, for "[α]p -47.5°" read "[α]p -62°." In line 40, for "m.p. 137–138°, [α]p -147°" read "m.p. 158–159.5°, [α]p -142°." —ALBERTO ERCOLI.

**N. V. Schwartz and A. G. Brook.** The Reaction of Triphenylsilylmetallics with Benzophenone. II. Triphenylsiloxydiphenylmethylpotassium.

Page 2439. In col. 2, line three of the equations, the first formula should read "Ph<sub>8</sub>SiOCPh<sub>2</sub>K."

Nelson J. Leonard, Terry W. Milligan and Theodore L. Brown. Transannular Interaction between Sulfide and Ketone Groups.

Pages 4078 and 6431. The folded forms should have been pictured as



Ignacio Tinoco, Jr. Hypochromism in Polynucleotides.

Pages 4786 and 4789. Equation (1) and Equation (A11) should read

$$\frac{F_{\text{oa}}}{f_{\text{oa}}} = 1 - \frac{4K\lambda_{\text{oa}}^2}{N} \sum_{a' \neq a} \sum_{i=1}^{N} \sum_{j \neq i} \frac{G_{ij}e_i \cdot e_j f_{\text{oa}}'\lambda_{\text{oa}}'^2}{\lambda_{\text{oa}}^2 - \lambda_{\text{oa}}'^2}$$

Page 4789. Equation (A10) should read

$$\nu_{oa}\mu_{Toa}^{2} = N\nu_{oa}\mu_{oa}^{2} - 4\sum_{\mathbf{a}'\neq\mathbf{a}}\sum_{\mathbf{i}=1}^{\mathbf{A}'}\sum_{\mathbf{j}\neq\mathbf{i}}\frac{(V_{\mathbf{i}j})_{\mathbf{a}j;\mathbf{a}'j\mu_{ioa},\mu_{ioa}',\nu_{oa}\nu_{oa}'}}{h(\nu_{oa}'^{2} - \nu_{oa}'^{2})}$$

N

Recalculation of the hypochromism of DNA with these corrected equations leaves Fig. 3 essentially unchanged; 0.03 or less should be added to each point on the curve.— IGNACIO TINOCO, JR.

J. L. Dye, R. F. Sankuer and G. E. Smith. Ion Transport in Sodium-Ammonia Solutions.

Page 4798. The data for  $T_+$  in Table I are incorrect. The correct data (ref. 20) do not change the intercept  $(T_+^0)$ .

Page 4802. Equation (2) in the last paragraph should read:

$$M^+ \cdot e^- \rightleftharpoons \frac{1}{2} M_2; K_2 = (M_2)^{1/2} / (M^+ \cdot e^-)$$

Page 4803. In the first column, Table VI and a text paragraph immediately following it were inadvertently omitted from the printer's manuscript and should be inserted between the sentence ending "...  $9.2 \times 10^{-3}$ ." and the next sentence "... These calculations show ...," as shown herewith

TABLE VI					
$K_2$ Required for Various Values of $K_1^{(t)}$					
$\stackrel{ m Molarity}{ imes 10^4}$	8.4 × 10~°	$K_2 \text{ for } K_1^{(t)} = 9.2 \times 10^{-1}$	$10.0 \times 10^{-3}$		
26.02	11.4	18.8	24.8		
49.80	16.7	20.4	23.9		
69.35	17.9	20.9	23.9		
125.5	16.9	19.2	21.5		
182.9	15.0	16.9	18.9		
283.6	13.0	14.6	16.2		
Average Deviation	$\overset{15.2}{\pm 2.0}$	$\overset{18.5}{\pm 1.8}$	$^{21.5}_{\pm\ 2.7}$		

As is evident from Table VI, the two constants are "coupled" to a certain extent; that the data can be fitted reasonably well over a range of  $K_1$  values if  $K_2$  is suitably altered. In addition to this, these parameters are quite sensitive to experimental error. At a concentration of 0.1 molar, for example, an error of  $\pm 1\%$  in  $T_{-}$  causes  $K_2$  to vary from 24.6 to 10.9 for a value of  $K_1^{(0)}$  of 9.2  $\times 10^{-8}$ . JAMES L. DYE.

J. L. Dye, G. E. Smith and R. F. Sankuer. The Activity Coefficient of Sodium in Liquid Ammonia.

Page 4803. Equation (2) of the abstract should read

$$Na^+ e^- \rightleftharpoons 1/_2 Na_2$$

$$M^{+}e^{-} \rightleftharpoons \frac{1}{2}M_{2}$$

-JAMES L. DYE.

**A. Bryson.** The Effects of Substituent on the  $pK_a$  Values and N-H Stretching Frequencies of 1- and 2-Naphthylamine, and The Ionization Constants of 3-Substituted Pyridines, 3-Substituted Quinolines and 4-Substituted Isoquinolines.

Page 4864. In Table I, 3rd from last line, last col., the NH frequency for 1-nitro-2-naphthylamine should read 3514 instead of 3541.

Page 4869. Structure II should read



Pages 4869, Structure V; 4870, Structure VIII; 4874, Structure II: 4876, Structure XI, all should be modified by changing the symbol  $-\delta$  at carbon atom 9 to  $-\delta\delta$ , as for example V, which should read

$$\overbrace{-\delta\delta}{\bigcirc} \overbrace{-\delta\delta}{\bigcirc} \overbrace{-\delta}{} \xrightarrow{-\delta}{} X$$

The alterations do not affect the validity of the arguments in the two papers concerned.—A. BRYSON.

Jack Hine. Polar Effects on Rates and Equilibria. III. Page 4880. Equation (14) should read  $-\log 6K^{A}_{d} = \tau^{A}{}_{p}(\sigma_{p-x})^{2}$ 

-JACK HINE.

Robert West, Hsien-Ying Niu, David L. Powell and Monroe V. Evans. Symmetrical Resonance Stabilized Anions,  $C_nO_{n-2}$ 

Page 6204. In col. 2, lines 11-12 below formulas, read . seven Raman active fundamentals, two polarized and five depolarized."-ROBERT WEST.

T. D. Coyle and F. G. A. Stone. Organoboron Halides. III. Lewis Acidity and  $F^{19}$  Nuclear Magnetic Resonance Spectra of Some Organodifluoroboranes. Page 6225. In col. 1, paragraph 2, omit "log" before the

term K<sub>p</sub> (atm.).—F. G. A. STONE.

## 1961, Vol. 83

**V. J. Shiner, Jr.** The Effects of Deuterium Substitution on the Rates of Organic Reactions. VI. Secondary Isotope Effects on the Solvolysis Rates of  $\gamma$ -Methyl Substituted *t*-Alkyl Chlorides.

Page 241. In col. 2, the last line before "Experimental" should read "important,<sup>16,17</sup> is a much more difficult question.'

T. A. Manuel, S. L. Stafford and F. G. A. Stone. Chemistry of the Metal Carbonyls. VII. Perfluoroalkyl Iron Compounds.

Page 250. In col. 1, line 9, for "(m.p. 105–106°)" read "(m.p. 15–16°)." In lines 15–16–17, for "c.p.s." read "p.p.m."—F. G. A. STONE.

Hyp J. Dauben, Jr., and Domenick J. Bertelli. Iron Tri-carbonyl Complexes of Cycloheptatriene, Cycloheptadiene and Cycloheptadienium Ion.

Page 498. In col. 2, lines 8-9, read "(π-C<sub>7</sub>H<sub>9</sub>)Fe(CO)<sub>2</sub>I." -Hyp J. Dauben, Jr.

E. J. Burrell, Jr. Formation and Identification of Unique Radical Sites in Irradiated Amides.

Page 574. In col. 2, lines 17 and 22, for ''Thermosil'' read ''Spectrosil.''—E. J. BURRELL.

L. L. Ferstandig, W. G. Toland and C. D. Heaton. Molecular Complexes of Pyromellitic Dianhydride.

Page 1154. In Table III, col. 4, the units in the column heading should read ''l.m.<sup>-1</sup>cm.<sup>-1</sup>.''

Richard S. Juvet, Jr., and Jen Chiu. Gas Chromatog-phy. IV. The Thermodynamics and Kinetics of the raphy. IV. Alcoholysis of Acetals.

Page 1563. In col. 1, the second equation should read " $k = (RT/Nh)e^{(T\Delta S*-\Delta H*)/RT}$ .—RICHARD S. JUVET, JR. Page 1563.

Fritz K. Kneubühl, W. S. Koski and W. S. Caughey. An Electron Spin Resonance Study of Silver Porphyrin.

Page 1608. In order to avoid misunderstanding, it is advisable to make some additional comments on the assump-tions used in Eq. 3. Considering the symmetry at the center of the porphyrin, one should write the spin Hamiltonian as

$$\begin{aligned} H_{a} &= \beta g_{\parallel} H_{z} S_{z} + \beta g_{\perp} (H_{y} S_{y} + H_{x} S_{x}) + A S_{z} I_{z}^{Ag} + \\ B(S_{y} I_{y}^{Ag} + S_{x} I_{x}^{Ag}) + \sum_{k=1}^{4} (C S_{z} I_{z}^{N,k} + D_{k} S_{y} I_{y}^{N,k} + E_{k} S_{x} I_{x}^{N,k}) \end{aligned}$$

with

$$D_1 = E_2 = D_3 = E_4$$
$$E_1 = D_2 = E_3 = D_4$$

if the nitrogens are counted clockwise. In our case, the C,  $D_k$  and  $E_k$  differ only slightly. Therefore, we put to a first approximation  $D_k = E_k$  and obtain for the  $\Sigma$ 

$$CS_{z}I_{z}^{4N} + D(S_{y}I_{y}^{4N} + S_{x}I_{x}^{4N})$$

which corresponds to the simplified Hamiltonian of our re-cent paper. The measured e.p.r. spectra do not contradict this assumption. An accurate test, however, can be made ouly by single crystal measurements.-FRITZ K. KNEUBÜHL.

E. Gaetjens and H. Morawetz. Intramolecular Carboxylate Attack on Ester Groups. II. The Effect of Diastereo-isomerism in Polymers and their Low Molecular Weight Models.

Page 1742. In col. 2, line 20, for ''(m.p. 130-151°)'' read ''(m.p. 130-131°).''

Arthur M. Wilson and Norman L. Allinger. Conformational Analysis. XIV. The Use of the Polarograph for the Determination of the Conformations of the 2-Halocyclohexanones.

Page 2000. In Table I, the heading of col. 3 should read ''I,  $\mu a./sec.^{1/6} mg.^{2/6} mM.$ ''

Page 2001. In col. 2, paragraph 7, line 6, the end of the line should read ". . .1.13  $\mu$ a./sec.<sup>1/6</sup> mM. mg.<sup>2/3</sup>," and the end of line 10 should read ". . . 0.43  $\mu$ a./sec.<sup>1/6</sup> mM. mg.<sup>2/3</sup>,". -Arthur M. Wilson.

L. de Vries. Preparation of 1,2,4,4-Tetraniethyl-3,5-Dimethylene Cyclopentene; The Magenta Species derived from it by Protonation and from Hexamethylcyclopentadiene by Hydride Abstraction.

Page 2392. In formula IIIb the positive charge should be on the CH2 group.

Page 2393. In col. 1, line 35, insert "350.6" between 333.6 and 370.0. Line 36, omit superscript "7." Line 37, add superscript "7" after " $\epsilon_{max}$  48,800." Line 38, "563" should be in italics. Line 43, omit superscript "7." Line 44, add superscript "7" after " $\epsilon_{max}$  49,600." In drawing at the top of col. 2, top line, insert a "+ sign" between "II" and "III b. In the formulas the conjust A B C D E and H serve to In the formulas, the capitals A, B, C, D, E, and F serve to denote these formulas and are not part of them. The bonds apparently connecting these capitals to the five-membered rings should accordingly be shortened, and the capitals should be lowered.

J. W. Linnett. A Modification of the Lewis-Langmuir Octet Rule.

Page 2645. In col. 1, three lines above the formulas, for "II" read "III."

Page 2648. In col. 1, three lines below the first formulas, for "XIX" read "XXIX."

Page 2649. In col. 1, line 32 from the end, for "XVII" read "XVIII."—J. W. LINNETT.

R. K. Blackwood, J. J. Beereboom, H. H. Rennhard, M. Schach von Wittenau and C. R. Stephens. 6-Methylenetetracyclines. I. A New Class of Tetracycline Antibiotics.

Page 2774. Structures I–IV should show double bonds at 11a,12 and 2,3. Structures VI–VII should show corrected stereochemistry at the 5a and 11a positions.



-R. K. BLACKWOOD