ADDITIONS AND CORRECTIONS

1953, Vol. 75

Leon D. Freedman, Henry Tauber, G. O. Doak and Harold J. Magnuson. The Preparation of Some Organophosphorus Compounds Possessing Anticholinesterase Activity.

Page 1380. In Table II, the 8th compound, for "2-Br-5-$CH_3C_6H_3PO_3H_2$" read "2-Br-4-$CH_3C_6H_3PO_3H_2$" and the 15th compound, for "(2-Br-5-$CH_3C_6H_3)_2PO_2H$" read "(2-Br-4-$CH_3C_6H_3)_2PO_2H$."—Leon D. Freedman.

A. Thompson, M. L. Wolfrom and E. J. Quinn. Acid Reversion in Relation to Isomaltose as a Starch Hydrolytic Product.

Page 3003. In Fig. 1, the figures on the ordinate spacings should read 500, 1000, 1,500, and 2,000.—M. L. Wolfrom.

1954, Vol. 76

H. H. Jaffé, Leon D. Freedman and G. O. Doak. Acid Dissociation Constants of Aromatic Phosphonic Acids. II. Compounds with Ortho Substituents.

Page 1549. In Table I, for 5-CH_3 read 4-CH_3. In Table II. Enter an additional row, with successive columns reading: 4-CH_3, Br, ..., −0.01, +0.15, +0.22.

Page 1551, Table III. All rows for X = Cl, Br are changed slightly; for the first pK, in H_2O, read $\rho = 0.706 \pm 0.060$, $r = 0.996$, $s = 0.043$, $-\log k° = 1.663$; in 50% EtOH, $\rho = 0.922 \pm 0.026$, $r = 0.999$, $s = 0.020$, $-\log k° = 2.899$. For the second pK, in H_2O, read $\rho = 0.900 \pm 0.103$, $r = 0.975$, $s = 0.128$, $-\log k° = 6.885$; in 50% EtOH, $\rho = 1.107 \pm 0.050$, $r = 0.997$, $s = 0.042$, $-\log k° = 1.196$.

The correction of the error actually improves all correlations (except the last one, which is virtually unaffected). The conclusions drawn remain unaffected, except that the exception to the rule that ortho substituents do not affect ρ is removed.—H. H. Jaffé.

Robert K. Ness and Hewitt G. Fletcher, Jr. Preparation and Properties of 3,5-Di-*O*-benzoyl-1,2-*O*-(1-hydroxybenzylidene)-α-D-ribose, an Orthobenzoic Acid Derivative of D-Ribofuranose.

Page 1666. In col. 2, line 15, for "+5.32°" read '+5.03°."—Hewitt G. Fletcher, Jr.

Charles H. Tilford and M. G. Van Campen, Jr. Diuretics. α,α-Disubstituted 2-Piperidine-ethanols and 3,3-Disubstituted Octahydropyrid[1,2-c]oxazines.

Page 2435. In note *u* of Table II, for "4,4-diphenyl-aza-5-oxabicyclo[4.2.2]decane" read "4,4-diphenyl-3-oxa-1-azabicyclo[4.2.2]decane."—Charles H. Tilford.

Robert E. Buckles and Jack F. Mills. Dissociation of Quaternary Ammonium Polyhalides in Trifluoroacetic Acid.

Page 6021. Table I should include an additional entry:

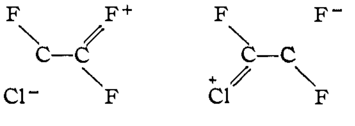
ICl 2.3×10^{-2} 450 121

Robert E. Buckles.

1955, Vol. 77

Max T. Rogers and Richard D. Pruett. The Electric Moments of Some Fluorocarbon Derivatives.

Page 3687. Resonance structures III and IV should be



Max T. Rogers.

Robert M. Healy and Mary L. Kilpatrick. A Kinetic Study of the Hydrolysis of Trimetaphosphates.

Page 5264. In Table V, for the acid solutions listed in the table, $\log_{10} A$ should be lowered by 1.0 unit, and for the basic solutions, by 3.0 units.—Mary L. Kilpatrick.

1956, Vol. 78

Charles C. Price and Edward A. Dudley. Acid Dissociation Constants and Rates of Saponification for 2-Furoic and β-2-Furyl-, β-2-Thienyl and β-1-Naphthylacrylic Acids.

Page 69. In Table II, 2-Furoic line, for "2.27," read "22.7"; for "−0.08 ± 0.07" read "0.36 ± 0.07."—C. C. Price.

George B. Butler. Studies in the Mechanism of the Mannich Reaction. I. The Reaction of Methylenediamines with 2-Methyl-2-nitro-1-propanol.

Page 482. The second sentence of paragraph 2, col. 1, should read: "Recent work by Ingwalson[5] in attempts to prepare the Mannich bases of N-phenylpiperazine, formaldehyde, and seven representative ketones, antipyrine, and phenol led to the conclusion that the chief product of these reactions was bis-(N-phenylpiperazyl)-methane, although one Mannich base, 2-(N′-phenylpiperazyl)-methylcyclohexanone, was obtained in 10% yield. The properties of the bis-(N-phenylpiperazyl)-methane obtained corresponded very closely with those reported by Prelog and Blazek,[6] who prepared this compound by merely shaking a mixture of N-phenylpiperazine and 40% formaldehyde solution."—George B. Butler.

Erling Grovenstein, Jr., and U. V. Henderson, Jr. Decarboxylation. III. The Kinetics and Mechanism of Bromodecarboxylation of 3,5-Dibromo-2-hydroxy- and 3,5-Dibromo-4-hydroxybenzoic Acids.

Page 572. In Table V, footnote *c*, for "72.2%" read "75.2."—Erling Grovenstein, Jr.

Russell Reed, Jr. Tetramethylenetrinitramine Trifluoroacetates.

Page 802. In Table I, at the top left, "CG_3COOH should be "CF_3COOH." In the lower left corner, "+ $C_6H_5CH_2$-$NHCOCF_3$" should be placed two lines higher up. Below "$R(OH)_2$" XIII should be VIII. Below and left of this, omit V and place the leftward arrow with $(CF_3CO)_2O$ further right, leading from VII to IV.

Page 803. In Col. 1, line 4 from the end, for XII read X. In col. 2, line 18 from the top, for XIII read XI.

Page 804. In col. 2, text line 24 from the end, for "C_6H_{11}-O_8N_6Cl" read "$C_6H_8ClF_3N_6O_8$."—Russell Reed, Jr.

Anton J. Havlik and Norman Kharasch. Derivatives of Sulfenic Acids. XXIV. Stereochemical Studies of Certain β-Chloroalkyl Aryl Sulfides.

Page 1208. In col. 1, line 3 from the end, for "electron-releasing" read "electron-attracting." In col. 2, line 11 below the table should read "dicated on the fundamental assumption . . ."—Anton J. Havlik.

Jerome A. Berson and William M. Jones. The Reaction of Ketene with Pyridine.

Page 1630. In Col. 1, the infrared absorption data for dehydro-W-II (XVIII) should read "infrared (chf.): $\lambda\lambda_{max}$ 5.84 (13), 6.01 (17), 6.13 (18), 6.21 (19), 6.34 (16), 6.44 (15), 6.65 (19), 6.84 (9), 7.03 (15)."—Jerome A. Berson.

Henry Gilman and Richard D. Gorsich. Some Reactions of *o*-Halobromobenzenes with *n*-Butyllithium.

Page 2218. In the formula diagram, at the top, for "*n*-C_4HgLi" read "*n*-C_4H_9Li." In compounds VII and VIII, the Li should be in the *ortho* position.

Page 2220. In col. 2, line 26 from the end, for "(68%)" read "(58%)."

Page 2221. In col. 1, line 10 from the end, for "(27%)" read "(13.5%)."—Henry Gilman.

Elihu Goldish, Kenneth Hedberg and Verner Schomaker. The Molecular Structure of Cyclobutene, C_4H_6.

Page 2714. In the abstract, line 3, for "94.0 ± 0.8°" read "94.0 ± 1.2°."

Page 2715. In col. 2, line 2, same correction.—VERNER SCHOMAKER.

F. A. H. Rice. Decarboxylation *via* the Acid Chloride of Penta-*O*-acetyl-D-gluconic Acid.

Page 3174. In col. 1, line 13, for "−2.6°" read "+2.6°[10]." In col. 2, line 18 of the Experimental, same correction. To ref. (11) add; "58, 2477 (1936)."—FREDERICK A. H. RICE.

James H. Brewster. The Configuration of Atrolactic Acid. Retention of Configuration in the Acid-catalyzed Ring Opening of Stilbene Oxide.

Page 4061 *et seq.* A preliminary analysis of the problem taken up in this paper unfortunately was attributed to McKenzie and Ritchie (*Ber.*, **70B**, 23 (1937)); to correct this error, the author wishes to point out that these workers made no statements on the stereochemistry of epoxide ring-opening reactions and they assigned a configuration to atrolactic acid *in agreement* with Freudenberg. Their assignment of a *threo* configuration to "α"-1,2-diphenyl-1,2-propanediol was confirmed by the work reported in this paper.—JAMES H. BREWSTER.

Philip S. Skell and Robert C. Woodworth. Structure of Carbene, CH_2.

Page 4496. Reference (6) as now printed is incomplete and misleading; subsequent publications have led to the reassignment of the λ4050 group of emission bands to the C_3 molecule: A. Monfils and B. Rosen, *Nature*, **164**, 712 (1949); A. E. Douglas, *Astrophys. J.*, **114**, 466 (1950); B. Rosen, *Mém. soc. roy. sci. Liège*, **13**, 187 (1955); K. Clusius and A. E. Douglas, *Can. J. Phys.*, **32**, 319 (1954). To date no confirmed spectral data have been reported for CH_2.—PHILIP S. SKELL.

C. B. Pollard and G. C. Mattson. The Addition of Saturated Heterocyclic Amines to Cinnamate Esters.

Page 4089.

MELTING POINTS OF THE ESTERS

TABLE II

	M.p., °C.
1-Pyrrolidyl	175.5–176
1-Piperidyl	195 –195.5
4-Morpholinyl	201
1-(4-Methyl)-piperidyl	215 –216

TABLE III

	M.p., °C.
Methyl	190.5–191.5
Ethyl	195 –195.5
n-Propyl	200.5
n-Butyl	169–170
n-Amyl	171.5–172.5
n-Hexyl	131–132
2-Methylpropyl	160–161
1-Methylpropyl	189.5–190
1-Methylbutyl	167–168

C. B. POLLARD.

G. D. Laubach, E. C. Schreiber, E. J. Agnello and K. J. Brunings. Corticosteroid Intermediates. IV. Synthesis of 11-Oxygenated Steroids from Ergosterol.

Page 4750. Col. 2: Compound XIX should be assigned the 8α,9α-configuration on the basis of conformational analysis and rotation data which appear in a communication by Drs. P. Bladon (Manchester University) and J. Elks (Glaxo Laboratories) and their co-workers (*J. Chem. Soc.*, 2921 (1953)).—E. J. AGNELLO.

T. Lloyd Fletcher and Hsi-lung Pan. N-Monoalkylation and Aryl Bromination of Certain Amines with Ethyl Bromide in Dimethyl Sulfoxide.

Page 4812. In col. 2, line 15, for "9-01" read "9-ol."—T. LLOYD FLETCHER.

Book Review. **By J. G. Aston.**

Page 5455. **Nuclear Magnetic Resonance.** By Edward Raymond Andrew (printed erroneously as Ernest Robert Andrew).

John C. Sheehan and Gerald F. Holland. The Isomerism of Dithiolphthalates.

Page 5631. In col. 1, line 6, for "I" read "II."—JOHN C. SHEEHAN.

William G. Dauben and Pierre H. Payot. Radiation Induced Oxidation of Cholesterol.

Page 5659. In col. 2, the table, line 9 from the end, for "B, 7α-Hydroxycholesterol" read "B, 7β-Hydroxycholesterol."—WILLIAM G. DAUBEN.

J. G. Pritchard and F. A. Long. Hydrolysis of Ethylene Oxide Derivatives in Deuterium Oxide–Water Mixtures.

Page 6010. In Fig. 2, the ordinate legend should read "$10^4 k_{OH^-}$ l.mole^{-1}sec.$^{-1}$."—J. G. PRITCHARD.

Peter A. Tavormina and Margaret H. Gibbs. The Metabolism of β,δ-Dihydroxy-β-methylvaleric Acid by Liver Homogenates.

Page 6210. The title line has erroneously "β,γ-Dihydroxy-β-methylvaleric Acid," but the name is printed correctly in the text and in the 1956 Indexes.

1957, VOL. 79

Fausto Ramirez and Stephen Levy. Phosphinemethylenes. I. Triphenylphosphoniumcyclopentadienylide.

Page 67. In col. 2, footnote (6)(b) should read "1221 1955)."—F. RAMIREZ.

Louis A. Carpino. Oxidative Reactions of Hydrazines. II. Isophthalimides. New Protective Groups on Nitrogen.

Page 101. In col. 2, line 17, after the word "above" insert "using HBr instead of HCl."—LOUIS A. CARPINO.

Robert L. Mann and D. O. Woolf. Hygromycin. III. Structure Studies.

Page 123. In formula XIX the 5-keto-6-deoxy-arabohexose should be linked to the phenolic hydroxyl in the 4 position (instead of 3).—R. L. MANN.

W. G. Frankenburg and A. A. Vaitekunas. The Chemistry of Tobacco Fermentation. I. Conversion of the Alkaloids. D. Identification of Cotinine in Fermented Leaves.

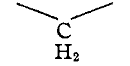
Page 151. In ref. (9), for "p. 901" read "p. 911."—W. G. FRANKENBURG.

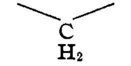
Alfred Hassner, Norman H. Cromwell and Stanley J. Davis. The Chemistry of Derivatives of 2-Benzaltetralone. I. A Novel Rearrangement Leading to 2-Substituted-1-naphthols.

Page 232. In col. 2, lines 32 and 33, the spectrum values should read, "λ_{max} 261 and 299(sh)mμ (ε 12,500 and 2,400)."—NORMAN H. CROMWELL.

Richard J. Mohrbacher and Norman H. Cromwell. Cyclopropyl Ketones. I. Synthesis and Spectra of 1-Aroyl-2-arylcyclopropanes.

Page 402. In column 1, line 2, for "4-biphenyllithium" read "biphenylyllithium." For the first formula, for "$\underbrace{C_6H_4CH—CH}_{CH_2}$—COCl" read "$\underbrace{C_6H_5—CHCH}_{CH_2}$—COCl."





Page 403. In Table I, for footnote, "[e] See Footnote *h*," read, "[e] See footnote *a*."

Page 404. In Column 1, line 22, for "derivative" read "derivatives." Table II, column 4, entry line 2, for "14.4" read "14.1." In column 2, line 13 from bottom, for "phenylcyclopropane-carbonylcarboxylic," read "phenylcyclopropanecarboxylic."

Page 406. In column 2, line 30 for $(I)^{25}$ read $(I)^{26}$.—NORMAN H. CROMWELL.

E. Spinner. Intramolecular van der Waals–London Cohesions in Butadiene and Benzene.

Page 504. Formulas (I) and (II) should appear as

$$(1)\ \ \underset{57{,}310\ \text{cm.}^{-1}}{\overleftrightarrow{CH_2{=}CH_2}} \qquad (II)\ \ \underset{46{,}080\ \text{cm.}^{-1}}{\overleftrightarrow{CH_2{=}CH}{-}\overleftrightarrow{CH{=}CH_2}}$$

Robert W. Holley. An Alanine-dependent, Ribonuclease-inhibited Conversion of AMP to ATP, and its Possible Relationship to Protein Synthesis.

Page 660. In Table I, footnote *a*, line 3, read "10 μmoles" for "5 μmoles" of magnesium chloride.

In col. 2, line 11, substitute "0.10 *M* $MgCl_2$" for "0.05 *M* $MgCl_2$."—ROBERT W. HOLLEY.

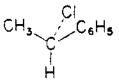
Philip L. Southwick and Jack R. Kirchner. A New Synthesis of Flavone Involving Cyclization *via* Displacement of Aromatic Chlorine.

Page 690. Formula IIa, Chart I, should show a positive ⊕ rather than a negative charge on nitrogen.

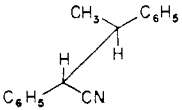
Page 691. In col. 2, line 35, sentence 2 should read "The mixture was heated at 100° for *ca.* 1 hour, then extracted three times with 10-ml. portions of ether."—PHILIP L. SOUTHWICK.

William J. Chambers, Wallace R. Brasen and Charles R. Hauser. Stereochemical Course in the Alkylation of Phenylacetonitrile and Phenylacetic Acid with Optically Active α-Phenylethyl Chloride.

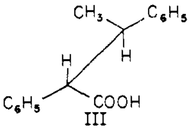
Page 880. Structures I, II and III should appear as shown herewith, and thus the D and L notations in the text should be changed accordingly.



I



II



III

CHARLES R. HAUSER.

Philip S. Skell, Robert C. Woodworth and James H. McNamara. Configuration of Free-Radicals. Non-stereospecificity of *cis*- and *trans*-2-Butene-Sulfur Dioxide Copolymerizations.

Page 1256. In col. 1, line 6 above the figure, for "3.5" read "−9.0."—PHILIP S. SKELL.

John E. Dickens, Fred Basolo and H. M. Neumann. Mechanism of Racemization of Complex Ions. III. Effect of Added Ions upon the Rates of Dissociation of Tris-(1,10-phenanthroline)-iron(II) and Tris-(1,10-phenanthroline)-iron(III) and upon the Rate of Racemization of Tris-(1,10-phenanthroline)-iron(III).

Page 1289. In col. 1, line 15, after the word "between" insert "8.5 and 10.0 Å. Ion pair formation is not expected between."—FRED BASOLO.

Gardner W. Stacy, James Wm. Cleary and Melvin J. Gortatowski. Stobbe-type Condensation of Ketones (Cyclohexanone and Acetone) with Diethyl Oxalacetate.

Page 1451. In formula II the lower substituent should attach to the second carbon atom.

Page 1452. In formula X the right-hand end group should be C_6H_5.

Page 1453. In col. 2, line 44, for "18.2 g." read "25.1 g."

Page 1454. In col. 2, line 2, for "(0.50 mole)" read "(0.05 mole)."—GARDNER W. STACY.

Harold H. Zeiss and Frances R. Zwanzig. Chromate Esters. III. Mechanism of Oxidation of 2-Methylfenchol and 1-Methyl-α-fenchene.

Page 1735. In col. 1, line 2, after "II." insert "However, in contrast with these latter reactions, the rate of oxidation of III–IV, $k_2^{25} = 1.03 \times 10^{-4}$ l./mole-sec., is second order, and the only hexavalent chromium species observable spectroscopically is chromic anhydride (347 mμ)."—HAROLD H. ZEISS.

Frederic Holtzberg, Arnold Reisman, Margaret Berry and Melvin Berkenblit. Chemistry of the Group VB Pentoxides. The Polymorphism of Nb_2O_5.

Page 2039. In the Abstract, line 6, for "*b* = 2.816Å." read "*b* = 3.816Å." In footnote (12) for "high purity of Nb_2O_5" read "high purity Nb_2O_5."

Page 2040. In Fig. 2, in the abscissa legend, for "10^{-2}" read "10^{-3}."—F. HOLTZBERG.

R. L. Ward and S. I. Weissman. Electron Spin Resonance Study of the Electron Exchange between Naphthalene Negative Ion and Naphthalene.

Page 2090. In col. 2, beginning at line 33, the rest of the paragraph should read "achieve in 36 different ways. Thus 255 of the 256 electron jumps originating in one of the extreme lines terminate in a frequency different from the original one, while 220 of 256 jumps originating in the central line terminate in a different frequency. Use of the central line may underestimate the exchange rate by 14%."—S. I. WEISSMAN.

Robert C. Woodworth and Philip S. Skell. The Reactions of Bivalent Carbon Species.

Page 2543. Footnote (15) should read at the end "*C.A.*, **49**, 883 (1955).—PHILIP S. SKELL.

Henry Gilman and Richard D. Gorsich. Some Reactions of *o*-Halophenyllithium Compounds.

Page 2625. In col. 1, footnote (2), for (1950) read (1956).

Page 2627. In col. 1, in the reaction diagram, the $(C_6H_5)_3$-Si- group should be attached at the *ortho* instead of the *meta* position.—HENRY GILMAN.

Donald Rosenthal and T. Ivan Taylor. A Study of the Mechanism and Kinetics of the Thioacetamide Hydrolysis Reaction.

Page 2685. Under Fig. 2 read "A, intermediate extracted with ether from a 0.001 *M* thioacetamide solution 1.3 *M* in HCl, re-extracted with 0.2 *M* NaOH and diluted to 0.01 *M* NaOH; B, 0.001 *M* thioacetic acid in 1.3 *M* HCl extracted with ether, re-extracted with 0.2 *M* NaOH and diluted to 0.04 *M* NaOH; I, etc."

Page 2687. In col. 2, line 12, for "−1.76" read "+1.76."

Page 2688. In lines 6–7, read "$\log f_T f_{H_3O^+}/f_M^* = BC$. In Tables I, III and page 2689, Table V, the heading of columns 2 to 5, read "$k \times 10^5$" rather than "$k \times 10^{-5}$."—DONALD ROSENTHAL.

W. W. Bromer, A. Staub, E. R. Diller, H. L. Bird, L. G. Sinn and Otto K. Behrens. The Amino Acid Sequence of Glucagon. I. Amino Acid Composition and Terminal Amino Acid Analyses.

Page 2797. Add to the legend of Fig. 2: "The chromatographic lanes, in order from top to bottom, contain DNP-arginine, ether extract of DNP-glucagon hydrolysate, aqueous phase of DNP-glucagon hydrolysate, ε-DNP-lysine, and di-DNP-histidine.—WILLIAM W. BROMER.

Charles C. Price and Robert J. Convery. The Free Radical Phenylation of 2,4-Dinitrotritiobenzene.

Page 2941 ff. The conclusion that there is no isotope effect in the free radical phenylation of 4-tritio-*m*-dinitrobenzene regrettably is in error. Because of the low conversion, no conclusions concerning an isotope effect can be made (see L. Melander, *Arkiv for Kemi*, **2**, 248 (1950)).—CHARLES C. PRICE.

Britton Chance and Gunnar Hollunger. Sites of Energy Conservation in Oxidative Phosphorylation.

Page 2970. In col. 1, eq. (1), (2) and (3) should read

$$c^{\cdots} + I \longleftrightarrow c^{\cdots}\cdot I \quad (1)$$
$$c^{\cdots}\cdot I + b^{\cdot\cdot} \longleftrightarrow b^{\cdots} + c^{\cdot\cdot}\sim I \quad (2)$$
$$c^{\cdot\cdot}\sim I + X \longleftrightarrow c^{\cdot\cdot} + X\sim I \quad (3)$$

In line 3 from the end, for "b$^{\cdot\cdot}$" read "c$^{\cdot\cdot}$," and in col. 2, line 8, for "b$^{\cdot\cdot}$" read "c$^{\cdot\cdot}$".—BRITTON CHANCE.

Hira Lal and **M. S. Narasinga Rao.** Metal Protein Interactions in Buffer Solutions. I. An Electrophoretic Study of the Interaction of Copper, Zinc, Cadmium and Cobalt Ions with Native and Modified Bovine Serum Albumins.

Page 3055. In col. 1, Eq. (11), line 6 below this, and in col. 2, ordinate of Fig. 4, and in eq. (13), for "$e^{-2\omega\Delta z_p}$" read "$e^{2\omega\Delta z_p}$."

Page 3056. In col. 2, line 8, for "three" read "free."—A. B. BISWAS.

Kenneth L. Rinehart, Jr., Ronald J. Curby, Jr., and **Philip E. Sokol.** Organic Chemistry of Ferrocene. II. The Preparation of ω-Ferrocenyl Aliphatic Acids.

Page 3421. Footnote (13) should read "Pauson has reported the isolation of ferrocenylacetothiomorpholide from the Willgerodt reaction of acetylferrocene, but has given no experimental details or physical properties (P. L. Pauson, *Quart. Revs.*, 9, 391 (1955)).—KENNETH R. RINEHART, JR.

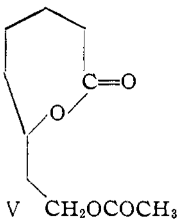
David A. Shirley and **Erwin A. Lehto.** The Metalation of 4-*t*-butyldiphenyl Sulfone with *n*-butyllithium.

Page 3481. In col. 2, line 15, for "demetalation" read "dimetalation."

Page 3482. In Fig. 2, upper right, III → should be III←.

Augusto Segre, René Viterbo and **Giovanni Parisi.** A New Synthesis of 6-Thioctic Acid (DL-α-Lipoic Acid).

Page 3504. In the formulas, V is in error and should be



V

In col. 2, line 31, for "at" read "of."—AUGUSTO SEGRE.

Meyer M. Markowitz, John E. Ricci, Richard J. Goldman and **Paul F. Winternitz.** The Chemical Properties of Nitrosyl Perchlorate: The Neutralization Equivalent.

Page 3660. In col. 1, line 3 from the end, the equation should read

$$3HNO_2 \longrightarrow HNO_3 + 2NO + H_2O$$

MEYER M. MARKOWITZ.

Jacques R. Fresco and **Paul Doty.** Polynucleotides. I. Molecular Properties and Configurations of Polyriboadenylic Acid in Solution.

Page 3929. In col. 1, line, 6, eliminate [6] and all of ref. (6) and add: "The combination of polyuridylic acid with poly-A previously observed[6,7] would not be expected to take place if poly-A were in the helical configuration. With Mr. R. Haselkorn we have shown that this is so: that is, poly-A and poly-U combine only when poly-A is in the randomly coiled form.

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(6) R. C. Warner, *Federation Proc.*, **15**, 379 (1956).

(7) A. Rich, "The Chemical Basis of Heredity," Johns Hopkins Press, Baltimore, Md., 1957, pp. 557-562.

We are very much indebted to Mrs. Elizabeth Klemperer, who was reponsible for many of the measurements in this investigation.—PAUL DOTY.

W. E. Silbermann and **T. Henshall.** The Kinetics of Ring Closure of Alkyl-substituted 3,3-Dimethyl-5-keto-hexanoic Acids by Sulfuric Acid.

Page 4112. In col. 1, the top part of the equations, read

$$\left.\begin{array}{ll} A + 2H_3O^+ \rightleftharpoons AH_2^{++}(\text{keto}) + 2H_2O & K_1 \\ AH_2^{++} + H_2O \rightleftharpoons A'H^+ + H_3O^+ & K_2 \end{array}\right\}\text{equilibria}$$
$$\Big\downarrow (k) \qquad \text{rate-controlling}$$
$$\text{product} \longleftarrow (\text{intermediates})$$

Page 4113. In col. 2, footnote (26) should read "(26) Reference 22, p. 416."—W. E. SILBERMANN.

John B. Brown and **Marguerite Svensson.** The Stability of Potassium Borohydride in Alkaline Solutions.

Page 4241. The ordinate and caption of Fig. 1 are labeled incorrectly. The ordinate is the logarithm of the slope, K, of the line of the first-order plot of the reaction. The rate constant, k', is related to the slope by $k' = 2.303K$.

The last paragraph of the communication was based on the erroneous assumption that Pecsok's rate constants were expressed in terms of time in hours rather than minutes.

With these changes, Jensen's data with borate buffer agree quite well with Pecsok's pyrophosphate buffer data and indicate a reaction which is first order in hydronium ion. However, in the high *p*H range shown in Fig. 1, the reaction appears to be 0.4 order with respect to hydronium ion.

Page 4242. The received date of the Communication was June 4, 1957.—JOHN B. BROWN.

Book Review. By **Maurice L. Huggins.** Crystal Structures. Vol. II.

Page 4252. Line 9 of the review, for "not" read "now."

Hans B. Jonassen and **Lowell Westerman.** Inorganic Complex Compounds Containing Polydentate Groups. XIV. The Stability of the Complexes Formed between Nickel(II) Ion and Tetraethylenepentamine.

Page 4278. Equation (22) should be extended to read

$$K^{\mathrm{Ni}}{}_{\mathrm{NiHT}} = K_{\mathrm{I}}K^{\mathrm{H}}{}_{\mathrm{TH_2}}K^{\mathrm{H}}{}_{\mathrm{TH_3}}K^{\mathrm{H}}{}_{\mathrm{TH_4}}$$

$$\text{since } K_{\mathrm{I}} = \frac{[\mathrm{NiHT}^{+3}][\mathrm{H}^+]^3}{[\mathrm{Ni}^{+2}][\mathrm{TH_4}^{+4}]}$$

$$\text{and } K^{\mathrm{H}}{}_{\mathrm{TH_2}}K^{\mathrm{H}}{}_{\mathrm{TH_3}}K^{\mathrm{H}}{}_{\mathrm{TH_4}} = \frac{[\mathrm{TH_4}^{+4}]}{[\mathrm{TH}^+][\mathrm{H}^+]^3}$$

$$K_{\mathrm{I}}K^{\mathrm{H}}{}_{\mathrm{TH_2}}K^{\mathrm{H}}{}_{\mathrm{TH_3}}K^{\mathrm{H}}{}_{\mathrm{TH_4}} = \frac{[\mathrm{NiHT}^{+3}]}{[\mathrm{Ni}][\mathrm{TH}^+]} = \mathrm{K}^{\mathrm{Ni}}{}_{\mathrm{NiHT}}$$

Then in Table III, the next to last line should read

log $K^{\mathrm{Ni}}{}_{\mathrm{NiHT}}$	12.86	12.82	12.86

HANS B. JONASSEN.

Burton J. Thamer. Spectrophotometric and Solvent-extraction Studies of Uranyl Phosphate Complexes.

Page 4301. In equation (18) the last denominator term should be $[H^+]_r{}^x$. Also, in all equations the letters α, β, γ, δ, i and r are subscripts.—BURTON J. THAMER.

Alan **E. Comyns** and **Howard J. Lucas.** Coördination of Silver Ion with Unsaturated Compounds. X. Complexes of Silver Perchlorate and Silver Nitrate with Alkynes.

Page 4341. In Table I, entry line 1, for "0.10" read "0.14"; line 2, for "0.10" read "0.14"; line 3, for "0.28" read "0.41"; for "0.22" read "0.32" and for "0.24" read "0.33." In col. 2, line 11, for "two thousand" read "fifteen hundred."—HOWARD J. LUCAS.

R. M. Keefer and **L. J. Andrews.** The Kinetics of Aromatic Hydrocarbon Chlorination in Acetic Acid. The Use of Zinc Chloride as a Catalyst and of Iodobenzene Dichloride as a Halogen Source.

Page 4350 *ff*. In Table III the value of 10^3k for benzene should read 0.00085. In Table IV the value of 10^5k_c for benzene should read 0.18. The partial rate factors reported for the uncatalyzed chlorinations on page 4352 are therefore in error. Those readers interested in the partial rate factors for the chlorination reaction should consult the recent work of H. C. Brown and L. M. Stock, THIS JOURNAL, 79, 5175 (1957). The partial rate factors for the $ZnCl_2$ catalyzed reaction should be $o_f = 137$; $m_f = 5.8$ and $p_f = 222$.—R. M. KEEFER.

George D. Maier and David E. Metzler. Structures of Thiamine in Basic Solution.

Page 4387. In Fig. 2, the curve marked A should be B; that labeled B should be A. The legend is correct as printed.—David E. Metzler.

Robert Bruce Moffett and Brooke D. Aspergren. Antispasmodics. X. α,α-Diphenyl-γ-amino Amides.

Page 4454. In Table II, col. 1, no. 22 should read 23, and both nos. 26 should read 27.

Page 4455. The m.p. of no. 17 should read 194–196°. In col. 1, both nos. 27 should read 28.—R. B. Moffett.

Robert Bruce Moffett, Brooke D. Aspergren and M. E. Speeter. Antispasmodics. XI. α,α-Diphenyl-γ-amino-N-monosubstituted Amides.

Page 4458. In Table I, no. 8, HCl salt, the formula should read "(l)-$CH_2CH(CH_3)$-$N(CH_3)_2$."

Page 4459. In col. 2, line 25, the compound should read "*dextro*-α,α-diphenyl-γ-dimethylaminovaleronitrile." In this column, also, after line 39, insert "*Hydrochloride.*—A solution of 10 g. (0.034 mole) of the above free base in 50 ml. of ethanol was acidified with ethanolic hydrogen chloride. On cooling 8 g. (80%) of white crystalline hydrochloride was obtained, m.p. 223–225°; $(\alpha)^{23}\text{D} + 92°$ (1% in methanol)."

Page 4460. In Table II, no. 9 (base) should have formula $C_{21}H_{28}N_2O$.—R. B. Moffett.

Kenneth L. Rinehart, Jr., Peter W. K. Woo and Alexander D. Argoudelis. Chemistry of the Neomycins. II. The Pentose Moiety.

Page 4568. In col. 2, the formula should read

$$R—O—C_5H_6O(OH)_2—O—C_6H_7O(OH)_2(NH_2)_2$$

Kenneth L. Rinehart, Jr.

Aaron Wold, Benjamin Post and Ephraim Banks. Rare Earth Nickel Oxides.

Page 4911 ff. The authors wish to note that "the indexing of the lines given in Table II is based on a unit cell one-half the size of that given in the body of the paper. This larger cell is based on data obtained from isostructural materials in which two very faint lines necessitated doubling of the indices. These lines did not appear on the films of lanthanum nickel oxide. However, by step-counting using a Norelco Diffractometer, over the region where these lines should appear, the stronger of the two lines was detected and had an intensity of 10% above background. In order to index this very weak line, it is necessary to double the 1 index in the last column of Table II as well as the *hkl* indices in the first column."—Aaron Wold.

Erling Grovenstein, Jr. Preparation of 2-Chloro-1,1,1-triphenylethane and Rearrangement in its Reaction with Sodium.

Page 4987. In col. 1, line 6 from the end, for "phenylacetic" read "phenylsuccinic."—Erling Grovenstein, Jr.

Oleg Jardetzky and Christine D. Jardetzky. An Interpretation of the Proton Magnetic Resonance Spectrum of Ribonuclease.

Page 5322. In col. 2, line 7, for "697" read "674," and for "8.9%" read "7%." In line 25, for "25.4%" read "26.2%." In line 38, for "15.2%" read "16.7%." In line 16 from the end, for "19.1" read "20.8%." In line 13 from the end, for "21.6%" read "22.2%. In line 11 from the end, for "49.9% read "50.1%."

Page 5323. In col. 1, after line 3, add "The authors are very much indebted to Drs. Saunders and Wishnia for a sample of their original record."—O. Jardetzky.

Ralph G. Pearson, Patrick M. Henry and Fred Basolo. Mechanism of Substitution Reactions of Complex Ions. XIV.

Page 5384. Table V was omitted and is given below. Tables V and VI given in the text should become Tables VI and VII.

TABLE V

RATE CONSTANT FOR RACEMIZATION OF OPTICALLY ACTIVE *cis*-$Co(en)_2Cl_2$ IN THE PRESENCE OF ACETATE ION AND AZIDE ION IN METHANOL AT 25°.

$[OAc^-] = 0.0192\ M$	$[N_3^-] = 0.0096\ M$
$[HOAc] = 0.0096\ M$	$[HN_3] = 0.0048\ M$
$k = 4.7 \times 10^{-3}$ min.$^{-1}$	$k = 5.1 \times 10^{-3}$ min.$^{-1}$

I. E. Newnham. The Separation of Zirconium and Hafnium by Differential Reduction of their Tetrachlorides.

Poge 5416. In col. 2, line 10, for "0.5%" read "0.05%." —I. E. Newnham.

M. Hellman, E. Peters, W. J. Pummer and L. A. Wall. Hexafluorobenzene from the Pyrolysis of Tribromofluoromethane.

Page 5654. In col. 2, the equation, for "C_6H_6" read "C_6F_6."

Page 5655. In col. 2, equation (2), for "$CFBrCFBr_2$" read "$CFBr_2CFBr_2$."—Max Hellman.

Ernest L. Eliel and Rolland S. Ro. Conformational Analysis. IV. Bimolecular Displacement Rates of Cyclohexyl *p*-Toluenesulfonates and the Conformational Equilibrium Constant of the *p*-Toluenesulfonate Group.

Page 5997. In col. 1, line 10, for "expected[11b,17]" read "expected[11a,17]," and in footnote (19), line 3, for "in benzene," read "in methanol."—Ernest L. Eliel

Ernest L. Eliel and Carl A. Lukach. Conformational Analysis. II. Esterification Rates of Cyclohexanols.

Page 5987, col. 1, line 17, for "K_a" read "k_a."—Ernest L. Eliel.