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 $(I)^{26}$ 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)
$$CH_2 = CH_2$$

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

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

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

In col. 2, line 11, substitute " $0.10 M \text{ MgCl}_2$ " for " $0.05 M \text{ MgCl}_2$."—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 \oplus 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.



CHARLES R. HAUSER.

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

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-(1,10phenanthroline)-iron(II) and Tris-(1,10-phenanthroline)iron(III) and upon the Rate of Racemization of Tris-(1,10phenanthroline)-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 $C_{\sigma}H_{\delta}.$

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, $k_2^{26} = 1.03 \times 10^{-4}$ l./mole-sec., is second order, and the only hexavalent chromium species observable spectroscopically is chromic anhydride (347 m μ)."—HAROLD H. ZEISS.

Frederic Holtzberg, Arnold Reisman, Margaret Berry and Melvin Berkenblit. Chemistry of the Group VB Pentoxides. The Polymorphism of Nb₂O₅.

Page 2039. In the Abstract, line 6, for "b = 2.816Å." read "b = 3.816Å." In footnote (12) for "high purity of Nb₂O₅" read "high purity Nb₂O₅."

Page 2040. In Fig. 2, in the abscissa legend, for " 10^{-3} " 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 $(C_6H_6)_{s-1}$ 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 $f_{\rm T}f_{\rm Ho}$ +/ $f_{\rm M}$ * = 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 DNParginine, 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

$$c^{\cdots} + I \longleftrightarrow c^{\cdots} \cdot I (1)$$

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

$$c^{\cdots} \sim I + X \longleftrightarrow c^{\cdots} + X \sim I (3)$$

In line 3 from the end, for "b"" read "c"," and in col. 2, line 8, for "b"" read "c"".—BRITTON CHANCE.

Hira Lal and M. S. Narasinga Rao. Metal Protein Inter-actions 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 \rightarrow should be III \leftarrow .

Augusto Segre, René Viterbo and Giovanni Parisi. New Synthesis of 6-Thioctic Acid ($DL-\alpha$ -Lipoic Acid).

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



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 Nitro-syl 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.

(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.

$$\begin{array}{c} A + 2H_8O^+ \swarrow AH_2^{++}(\text{keto}) + 2H_2O & K_1\\ AH_2^{++} + H_2O \swarrow A'H^+ + H_8O^+ & K_2 \end{array}$$
equilibria

$$(k)$$
 rate-controlling

product <--- (intermediates)

Т

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 pH 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

$$K^{\rm Ni}{}_{\rm NiHT} = K_{\rm t} K^{\rm H}{}_{\rm TH_2} K^{\rm H}{}_{\rm TH_4} K^{\rm H}{}_{\rm TH_4}$$

since
$$K_1 = \frac{[\text{NiHT}^{+3}][\text{H}^+]^3}{[\text{Ni}^{+2}][\text{TH}_4^{+4}]}$$

and $K^{\text{H}}_{\text{TH}_2}K^{\text{H}}_{\text{TH}_4}K^{\text{H}}_{\text{TH}_4} = \frac{[\text{TH}_4^{+4}]}{[\text{TH}^+][\text{H}^+]^3}$
 $K_1K^{\text{H}}_{\text{TH}_2}K^{\text{H}}_{\text{TH}_4}K^{\text{H}}_{\text{TH}_4} = \frac{[\text{NiHT}^{+3}]}{[\text{Ni}][\text{TH}^+]} = K^{\text{Ni}_{\text{NiHT}}}$

Then in Table III, the next to last line should read $\log K^{\rm Ni}{}_{\rm NiHT}$ 12.86 12.8212.86

HANS B. JONASSEN.

Burton J. Thamer. Spectrophotometric and Solventextraction 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 $10^{3}k$ for benzene should read 0.00085. In Table IV the value of $10^{3}k_{\bullet}$ 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, catalyzed reaction should be $o_f = 137$; $m_i = 5.8$ and $p_i = 222$. R. M. KEEFER.