## ADDITIONS AND CORRECTIONS

## 1951, Vol. 73

Thomas L. Jacobs, Richard Akawie and Robert G. Cooper. Rearrangements Involving 1-Pentyne, 2-Pentyne and 1,2Pentadiene.

Page 1273. The second author wishes to be recorded as Richard I. Akawie.

## 1952, VOL. 74

Norman H. Nachtrieb and Robert E. Fryxell. The Extraction of Ferric Chloride by Isopropyl Ether. III.

Page 899. For Fig. 5 the abscissa should be numbered across $10^{-5}, 10^{-4}, 10^{-3}, 10^{-2}, 10^{-1}$, with the legend "Aqueous $\mathrm{Fe}($ III ) formality." The ordinate should be numbered upward as $10^{-4}, 10^{-3}, 10^{-2}, 10^{-1}, 10^{0}$, with the legend "Ethereal Fe (III) formality.'

Page 900. The legend of Fig. 8 should read "Ether immiscibility gap in the absence of ferrous chloride: (a) initial acidity; (b) equilibrium acidity."-Robert E. Fryxell.

1953, Vol. 75
L. H. Conover. Terramycin. IX. The Synthesis of Indanone Degradation Products of Terramycin.

Page 4018. In col. 1, formula VII-VIII should read

rather than

I. H. CONOVER.
L. H. Conover, W. T. Moreland, A. R. English, C. R. Stephens and F. J. Pilgrim. Terramycin. XI. Tetracydine.

Page 4622. In col. 2, line 18 below the formula should read: "and at $246 \mathrm{~m} \mu, \log \in 4.24 ; 265 \mathrm{~m} \mu, \log \epsilon 4.19$ (shoulder); and $382 \mathrm{~m} \mu$, log $\in 4.25^{\prime}-\mathrm{L} . \mathrm{H}$. CONOVER.

## 1955, Vol. 77

Ronald M. Milburn and W. C. Vosburgh. A Spectrophotometric Study of the Hydrolysis of Iron(III) Ion. II. Polynuclear Species.

Page 1353. In the title of Fig. 1, line 6, for ' $325 \mathrm{~m} \mu$, 20.2 " read " $325 \mathrm{~m} \mu, 12.2$; $320 \mathrm{~m} \mu, 20.2$."-RONALD M. Milburn.
F. Newton Hayes, Betty S. Rogers and Donald G. Ott. 2,5-Diaryloxazoles and 2,5-Diaryl-1,3,4-oxadiazoles.

Page 1851. In Table I, table text line 4 from the end, in the formula, for " $\mathrm{C}_{21}$ " read " $\mathrm{C}_{20}$." In Table II, table text lines 6 and 7 from the top, for " $\mathrm{C}_{20}$ ' read " $\mathrm{C}_{19}$." -D-DONALD G. Ott.

Ronald M. Milburn. The Stability of Iron(III)-Phenol Complexes.
Page 2064, In footnote (7), for "(U.S.S.S.R.)" read "(U.S.S.R.)."

Page 2065. In col. 1, equation (2), for " $\mathrm{XC}_{2} \mathrm{H}_{4} \mathrm{OFe}^{2+}$ " read " $\mathrm{XC}_{6} \mathrm{H}_{4} \mathrm{OFe}^{2+}$."

Page 2066. In col. 1, line 2, for " $90 . .^{22}$ " read " $90 .{ }^{23}$ "' In lines $29-30$ for "significant changes" read "no significant changes."-Ronald M. Milburn.
D. N. Shah, S. K. Parikh and N. M. Shah. Synthesis of Flavone- and Flavonol-6-carboxylic Acid and Related Derivatives.

Page 2224. In col 1, line 6, for " $139^{\circ}$." read " $189^{\circ}$."D. N. Shah.

Donald G. Ott and Grant Gill Smith. A Carbon-14 Tracer Study of the Alkaline Rearrangement of Chlorophenanthraquinones.

Page 2327. In col. 1, the product of reacn. (1) should be


Donald G. Ott.
A. M. Kotliar and H. Morawetz. Chelation of Copper(II) with Polyacrylic and Polymethacrylic Acids.
Page 3693. In Table II, the heading of col. 3, for " $104\left(\mathrm{H}^{+}\right)$" read " $10^{6}\left(\mathrm{H}^{+}\right)$."-Herbert Morawetz.
Leo J. Saidel. Ultraviolet Absorption Spectra of Peptides. III, N,N-Dialkylamides Including Polyvinylpyrrolidone.
Page 3893. In the legend of Fig. 1, for "A, N,N-diethylacetamide" read "A, N, N-dimethylacetamide."-LEO J. Saidel.
Elliott Shaw. The Synthesis of Tryptamines Related to Serotonin.
Page 4321. In Table II, entry line 9, for "1-Benzyl-5-methoxy-N,N-dimethyltryptamine" read "1-Benzyl-2methyl - 5 -methoxy - N, N-dimethyltryptamine."-Elliott Shaw.
Henry Gilman and Clare W. Gerow. The Formation of Hexaphenyldigermane and Carbon Monoxide from the Reaction of Triphenylgermyllithium with Some Esters.

Page 4675. In col. 2, line 43, for "cation" read "anion." In line 1 of the second set of equations for " $\left(\mathrm{C}_{2} \mathrm{H}_{5}\right)_{2} \mathrm{CO}^{\prime}$ ' read " $\left(\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{O}\right)_{2} \mathrm{CO}$." In footnote (2) for "in press" read " 77 , 2322 (1955)."-Henry Gilman.

Don T. Cromer and K. Herrington. The Structures of Anatase and Rutile.


Fig. 1.-Reflectance spectra of rutile and anatase pigments.
Page 4709. In col. 2, line 8 from the end, reference is made to Fig. 1, which by oversight was not included, and is given herewith.-Kermit Herrington.

Donald B. Miller and Harry H. Sisler. Observations on the Addition Compound of Silicon Tetrafluoride and Ammonia.
Page 5000, col. 1, line 6, for " $\mathrm{d}(\ln P) / \mathrm{d}(1 / T)=-\Delta H / R, "$ read ' $3 \mathrm{~d}(\ln P) / \mathrm{d}(1 / T)=-\Delta H / R$.
Page 5000 , col. 1, line 7, for " 18.2 ," read " 54.6 ."-Harry H. Sisler.

Morton E. Jones, Kenneth Hedberg and Verner Schomaker. The Molecular Structure of Formyl Fluoride.
Page 5279. In col. 4 of the matrix table, for " +3289.0 " read " +188450 ."-Verner Schomaker.
E. J. Corey, T. H. Topie and W. A. Wozniak. The Stereochemistry of $\alpha$-Brominated $\alpha$-Methyl-, $\alpha$-Dimethyl- and $\alpha$-Dibenzylcyclohexanones.
Page 5416. In col. 1 , text line 8 from the end, for " -0.6 " read "-1.4;" In footnote (11), for " $\Delta F=R T \ln K_{\text {cis }} /$ tranns, $R T \ln 2$ " read " $\Delta F=-R T$ in $K_{\text {cis } / \text { trans }}-R T \ln 2$." E. J. Corey.

Monroe E. Wall and Henry A. Walens. Steroidal Sapogenins. XXVII. Preparation and Properties of 20 -Isosapogenins.

Page 5662. In Table I, col. 1, in each of the ten compound names, for " $\epsilon$ " read " $\xi$."-William P. Ratchford.
J. H. Boyer, R. F. Reinisch, M. J. Danzig, G. A. Stoner and F. Sahhar. The Transformation of $\psi$-o-Dinitroso Aromatic Compounds into 0 -Nitroaryl Amines.

Page 5688. In col. 2, line 1 of footnote, for " 2,2 -dinitrosobiphenyl" read " 2,2 '-dinitrosobiphenyl."
Page 5690. In Table I, the col. heading "Solution" should read "Ethanol ( $95 \%$ ) solution." In Table II, Part B, for "Mixture (III)" read "Mixture (II)." In col. 2, line 7, for "Solutions" read "Ethanol (95) solutions."-J. H. Boyer.
Kurt L. Schoen and Ernest I. Becker. The Base-catalyzed Alkylation of Fluorene with Alcohols.

Page 6030. In Table I, col. 1, add ${ }^{b}$ on 9-Butyl-, 9-Hexyland 9 -Heptyl-, and add footnote ${ }^{b} \mathrm{Cf}$. G. B. Bachman and S. Polansky, J. Org. Chem., 16, 1690 (1951).-Ernest I. Becker.
Robert D. Stewart and George H. Cady. Thermal Decomposition of Trifluoroacetyl Hypofluorite.
Page 6110. In line 1 of the Abstract, for " $\mathrm{C}_{3} \mathrm{FCOOF}$ " read "CF3 COOF."
S. W. Rabideau and H. D. Cowan. Chloride Complexing and Disproportionation of $\mathrm{Pu}(\mathrm{IV})$ in Hydrochloric Acid.
Page 6146. In Table II, the head of col. 4 should read " $\mathrm{Pu}(\mathrm{III})^{2} \mathrm{Pu}(\mathrm{VI})\left(\mathrm{H}^{+}\right) / \mathrm{Pu}(\mathrm{IV})^{3}$.
Page 6147. In Table IV, the heading of col. 2 should read $"\left(\mathrm{Pu}^{+3}\right)^{2}\left(\mathrm{PuO}_{2}{ }^{+2}\right)(\mathrm{H}+)^{4} /\left(\mathrm{Pu}^{+4}\right)^{3}$. The second entry in Col. 2 should read " $1.92 \times 10^{-3}$."-Sherman W. Rabideau.
G. Bryant Bachman, Henry Feuer, B. R. Bluestein and C. M. Vogt. The Boron Trifluoride-Nitrogen Tetroxide Complex. Its Composition and Chemical Behavior.
Page 6189. "In col, 1, line 16 of the Experimental, for " 100 g ." read " 136 g ."-G. B. Bachman.
Thomas J. Houser, Richard B. Bernstein, Richard G. Miekka and John O. Angus. Deuterium Exchange between Trichloroethylene and Water. Infrared Spectral Data for Trichloroethylene- $d$.
Page 6202. In Table, I, heading of last col. should read "Fraction exchanged, f."-R. B. Bernstein.
Nelson J. Leonard and Michinori Óki. Cyclic Aminoacyloins and Aminoketones. VIII. N-Cyclopropyl Compounds and Electronic Limitation of Transannular Interaction between N and $\mathrm{C}_{\mathrm{co}}$.
Page 6245. In col. 1, paragraph 2, line 4, for " 9.4 " read "4.6."-Nelson J. Leonard.

Shunsuke Murahashi (and Shigeki Horiie). Synthesis of Phthalimidines from Schiff Bases and Carbon Monoxide.
Page 6404. Add as co-author "Shigeki Horiie."-Melvin S. Newman.
Bernhard Witkop with Richard K. Hill. The Synthesis of 2-Carboxydeoxyeserolines via $\beta$-Methyl- $\psi$-tryptophan.

Page 6593. Formula XVI should read



Bernhard Witkop.
Norman G. Gaylord and Daniel J. Kay. Dioxolanones. II. Lithium Aluminum Hydride Reduction of the DiketeneAcetone Adduct.
Page 6642. In col., 2, Experimental, add " $\alpha$-naphthylurethan, m.p. 76-78"." and " 2,4 -dinitrophenylhydrazone, m.p. $120^{\circ}$."-Norman G. Gaylord.

Charles G. Skinner and William Shive. Synthesis of Some 6-(Substituted)-aminopurines.
Page 6693. In Table II the heading of the last col. for " $10^{3}$ " read "mg./1iter $\times 10^{-3}$." The value recorded for 6 -(2-pyridylmethyl)-aminopurine should read " $>6$ " rather than " 6 ."-Charles G. Skinner.
Boris Weinstein. Some Esters of 2-Thenoic Acid.
Page 6709. In Table I, col. 1, line 9, for "Tri-isoamyl" read "Pri-isoamyl."-Boris Weinstern.

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\text { 1956, VoL. } 78
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Henry G. Mautner and W. D. Kumler. 2-Phenylselenosemicarbazide and Related Compounds. Dipole Moment and Spectroscopic Measurements on Analogous Ureides, Thioureides and Selenoureides.
Page 101. In col. 2, line 10, for "cyanide" read "cyan-amide."-Henry G. Mautner.
Wayland E. Noland, Howard I. Freeman and M. Scott Baker. The Diels-Alder Reaction of Anthracene with Nitroölefins. A New Route to 11-Nitro- and 11-Amino-9,10-dihydro-9,10-ethanoanthracenes.
Page 188. In col. 1 the legend "I-VII" should appear to the right of the first arrow under the structure of the product of the first reaction. In col. 2, footnote 6, line 1, read "reports" for "report", and in line 3 insert after "see"" "D. V. Nightingale, M. Maienthal and J. A. Gallagher, This Journal, 75, 4852 (1953), and..."

Page 192. Col. 1, Compound V has subsequently been obtained in a dimorphic form, m.p. $183.5-186^{\circ}$, having a markedly different X-ray diffraction powder pattern from the lower melting form. The two forms have identical solution infrared spectra in $\mathrm{CS}_{2}\left(\gamma \mathrm{NO}_{2}\left(\mathrm{~cm}^{-1}\right) 1381\right.$ or 1341) but their crystal infrared spectra in Nujol suspension differ, primarily in the region $700-800 \mathrm{~cm} .^{-1}$. Three samples of the lower melting form, during a year in the crystalline state, changed into the higher melting form. Another sample was observed to melt on a Kofler micro hot stage largely as the lower melting form and, as the temperature was raised, to crystallize completely and then remelt as the higher melting form. For the higher melting form: Anal. Found: C, 81.13, 81.37 ; H, $5.06,5.32$; N, 4.14.-Wayland E. Noland.

William R. Nes. The Anthrasteroid Rearrangement. III. The Pathway in the Conversion of Dehydroergosterol to Anthraergostapentaene.
Page 193. In col. 2, line 8, for " $7,9(11$ )-ergostadiene" read " $7,9(11), 22$-ergostatriene."-William R. Nes.

James L. Johnson, Milton E. Herr, John C. Babcock, (Roman P. Holysz), Anne E. Fonken, James E. Stafford and Frederick W. Heyl. "Enamine" Derivatives of Steroidal Carbonyl Compounds. IV. Structural Considerations.

Page 430. The name of Roman P. Holysz should be added to the list of authors.-JOHN C. Babcock.

William R. Nes, Robert B. Kostic and Erich Mosettig. The Anthrasteroid Rearrangement. IV. The Preparation of Several New Anthrasteroids and Some Observations on the Dehydrobromination of 7 -Bromo- $\Delta^{5}$-steroids.

Page 436. In col. 1, line 2, for "lumisterol"' read "lumisterol ;", In col. 2, Table I, footnote $a$, line 1 , for "for" read "from."
Page 439. In col. 1, line 12, transpose 690 and 647. In col. 2, line 42 , transpose 9,950 and 11,250 .-William R. Nes.

Robert W. Kiser and W. H. Johnston. Chemical Aspects of the Geiger-Müller Discharge. I. The Ethanol-Argon Counter.
Page 708. In col. 1 , line 8 from the end, for " $m / e$ " read " $m / e$ 16."

Page 709. In col. 2, lines 5, 8, 9 and 10 (formulas), for the ${ }^{+}$on the $\left(\mathrm{CH}_{3} \mathrm{CH}_{2} \mathrm{OH}\right)$, read *.-Robert W. Kiser and W. H. Johnston.

Fred McCollough, Jr., and John C. Bailar, Jr. The Stereochernistry of Complex Inorganic Compounds. XIX. The Resolution of Bis-ethylenediamine-(2,2-diaminobi-pheny1)-cobalt(III) Chloride.
Page 714. The first authors name should have read "McCollough."
Arnold Reisman, Frederic Holtzberg, Sol Triebwasser and Melvin Berkenblit. Preparation of Pure Potassium Metaniobate.
Page 720. In col. 1, line 1 , for "II" read "III." In footnote (8), line 3, for "but either" read "but III either." In col. 2, line 38 should read "with stirring. The solution is allowed to stand for several minutes and 25 ml . of HCl is added. A watch glass is placed over the beaker and."-Arnold ReisMAN.
William H. Fishman and S. Green. Glucosiduronic Acid Synthesis by $\beta$-Glucuronidase in a Transfer Reaction.

Page 881. In Col. 1, Table I, heading line 14, for "ments. ${ }^{18}$ " read "ments. ${ }^{15 a}$," In line 4 of table note $a$, for "a drop", read " 0.10 ml ." In col. 2 , line 16 , for "acid. 11 ", read "acid. ${ }^{\text {is } "-W i l l i a m ~ H . ~ F i s h m a n . ~}$
J. G. Moffatt and H. G. Khorana. D-Xylose-3-phosphate.

Page 883. In col. 2, line 4, for "X." read "D:"; and line 3 , note (2), note (3) and page 884, col. 2, text line 15 from the end, for "Barnell" read "Barnwell."-H. G. Khorana.

Ernest L. Eliel, Carolyn Herrmann and James T. Traxler. The Mechanism of Halide Reductions with Lithium Aluminum Hydride. III. Reduction of $\alpha$-Chloro Acids and Esters.

Page 1197. In Col. 1 line 22 for "Methyl" read "Ethyl" and in line 35 for "methyl" read "ethyl."-Ernest L. Eliel.
J. Bello and J. R. Vinograd. Selective Acetylation of the Hydroxyl Groups in Gelatin.
Page 1370. In col. 1, line 9, for "water" read "ether."Jake Bello.
M. L. Wolfrom and A. B. Foster. Dithiocarbonate Esters of Arabinose.

Page 1401. In col. 1, equation (3), for $R-S-C-O-R^{\prime}$ $\operatorname{read} \mathrm{R}-\mathrm{S}-\stackrel{\mathrm{O}}{\mathrm{C}}-\mathrm{S}-\mathrm{R}^{\prime}-$ M. L. Wolfrom.
F. Smith and H. C. Srivastava. Acetolysis of the Glucomannan of Iles Mannan.

Page 1405. In formula $D$ the first ring should be a pyranose rather than cyclohexane. In col. 1, line 19, for "(cellobiose, $\beta$ )" read "(cellobiose, B)."

Page 1406. In col. 2, line 5 from the end, for "(b)" read "(c)."-F. Smith.

Robert Stevenson and Louis F. Fieser. Further Products from $4 \alpha$-Acetoxy- $\Delta^{5}$-cholestene-3-one.

Page 1409. In the Abstract, line 3, omit the words "apparently by different mechanisms."-Louis F. Fieser.

Edward S. Rothman and Monroe E. Wall. Steroidal Sapogenins. XXXIII. Transformations in the 12 -Ketosteroid Series.
Page 1745. In footnote (15), line 5, for " 288 " read " 228 ." -William P. Ratchford.

Mary L. Kilpatrick, Claude C. Herrick and Martin Kilpatrick. The Decomposition of Ozone in Aqueous Solution.
Page 1784. The sentence containing equations (6a) and (6b) should read: "If the decomposition occurs via (1), (2), (3) and (4), the rate is given by

$$
\begin{equation*}
-\mathrm{d}\left[\mathrm{O}_{3}\right] / \mathrm{d} t=2 k_{2}\left(k_{1} / k_{4}\right)^{1 / 2}\left[\mathrm{O}_{3}\right]^{1 / 2}\left[\mathrm{OH}^{-}\right]^{1 / 3} \tag{6a}
\end{equation*}
$$

and if via (1), (2), (3) and (5), by
$-\mathrm{d}\left[\mathrm{O}_{3}\right] / \mathrm{d} t=k_{1}\left[\mathrm{O}_{3}\right]\left[\mathrm{OH}^{-}\right]+$

$$
\begin{equation*}
2\left(k_{1} k_{2} k_{3} / k_{5}\right)^{1 / 2}\left[\mathrm{O}_{3}\right]^{1 / 2}\left[\mathrm{OH}^{-}\right]^{1 / 2} \tag{6b}
\end{equation*}
$$

provided $\left(k_{1}\left[\mathrm{O}_{3}\right]\left[\mathrm{OH}^{-}\right]\right)^{2} \ll 4\left(k_{1} k_{2} k_{3} / k_{5}\right)\left[\mathrm{O}_{3}\right]^{8}\left[\mathrm{OH}^{-}\right]$.-MARY L. Kilpatrick.

Roger Adams and Maurizio Gianturco. Senecio Alkaloids: The Structure of Trichodesmine.
Page 1922. In col. 1, line 18, substitute "isobutyroacetic acid" by "isovaleroacetic acid."

Page 1924. In col. 1, line 13, substitute the words "Two features" by "One feature," and "are" by "is."
Page 1924. In col. 1, line 15 , substitute the balance of the paragraph from "and the two carboxyls of the acid, etc." by "The orientation of the acidic moiety in the alkaloid must be as indicated since otherwise an amino acid rather than an intermolecular salt would be formed on hydrogenation of monocrotaline or trichodesmine."-Roger Adams.

Roger Adams and Maurizio Gianturco. Crotalaria Alka1oids: The Structure of Junceine.
Page 1927. In col. 1, line 14, for "parts" read "pairs." In col. 1, line 24, substitute the balance of the paragraph starting "Moreover the two carboxyls, etc.," by "The orientation of the acidic moiety in the alkaloid must be as indicated since otherwise an amino acid rather than an intermolecular salt would be formed on hydrogenation of jun-ceine."-Roger Adams.
B. S. Friedman and F. L. Morritz. The Alkylation of Benzene with Isoamylenes and with $t$-Pentyl Chloride.
Page 2001. In col. 1, last line, and col. 2, first line, for "with 3 -methyl-1-butene" read " 2 -methyl-2-butene." Two lines lower the line should read "aromatics was formed, with the isomeric olefin 3 -methyl-1-butene."-B. S. Friedman.

Henry Gilman and Richard E. Gorsich. Some Reactions of $o$-Halobromobenzenes with $n$-Butyllithium.

Page 2218. "In the formula diagram, first line, for " $n$ - $\mathrm{C}_{4}$. $\mathrm{HgLi}^{\prime}$ " read " $n$ - $\mathrm{C}_{4} \mathrm{H}_{9} \mathrm{Li}$." For compounds VII and VIII the Li should be in the ortho position.
Page 2220. In Col. 2, line 26 from end, read "( $58 \%$ ) for (68\%)."
Page 2221. In Col. 1, line 10 from end, read "(13.5\%)" for "( $27 \%$ )."-Henry Gilman.

Richard L. Hill and Thomas I. Crowell. Structural Effects in the Reactivity of Primary Amines with Piperonal.

Page 2286. In Table III, the heading of the last column should read " $K \times 10^{-8}$."-Thomas I. Crowell.

Donald C. Freeman, Jr., and Charles E. White. The Structure and Characteristics of the Fluorescent Metal Chelates of $0,0^{\prime}$-Dihydroxyazo Compounds.
Page 2678. In Col. 1, second line from the end, change 3 to 4 to read " 1,1 '-azonaphthalene- 4 -sulfonic acid."Charles E. White.
S. Leonard Shufler, Heinz W. Sternberg and R. A. Friedel. Infrared Spectrum and Structure of Chromium Hexacarbonyl, $\mathrm{Cr}(\mathrm{CO})_{6}$.

Page 2688. In col. 1, line 1, we made comments in a "Note Added in Proof", on statements by Llewellyn H. Jones (J. Chem. Phys., 23, 2448 (1955)): "The approximate absorption coefficients are $0.270 \mathrm{~cm} .^{-1}{ }^{1} .^{-1}$ and $0.0066 \mathrm{~cm}^{-1}$ $\mathrm{p} .^{-1}$, respectively. This band at 2018 must be the $\mathrm{C}^{13}-\mathrm{O}$ stretching frequency of the isotopic species, $\mathrm{Ni}\left(\mathrm{C}^{12} \mathrm{O}\right)_{3}\left(\mathrm{C}^{13} \mathrm{O}\right)$, which is normally present to the extent of a little over $4 \%$. The intensity ratio is about right, especially considering that for $\mathrm{Ni}\left(\mathrm{C}^{12} \mathrm{O}\right)_{4}$ the peak at 2057 is triply degenerate while the $\mathrm{C}^{13} \mathrm{O}$-peak of the mono-C ${ }^{13}$ species will not be degenerate." Dr. Jones has objected to our interpretation that his statements contain erroneous implications and wishes to point out that the band intensity information given by us was implied by the above statements from his note.-R. A. Friedel.
Sherman W. Rabideau. Thermodynamic Functions and Formal Potentials of the Plutonium(V)-(VI) Couple.

Page 2707. In col. 1, line 7, for "XO ${ }^{+2 \text { " }}$ read " $\mathrm{XO}_{2}{ }^{+}$." In col. 2, line 4, for " $P{ }^{+3}$ ", read " $\mathrm{Pu}+3$ ", In Table IV, for formal potential " -1.1721 "" read " -1.1702 " and for "-0.9133" read "-0.9164."-Sherman W. Rabideau.

William E. Truce, Max M. Boudakian, Richard F. Heine and Robert J. McManimie. Stereospecific Reactions of Nucleophilic Agents with Acetylenes and Vinyl-type Halides. I. The Mechanism of the Base-catalyzed Reaction of cis-Dichloroethylene with Thiols.
Page 2744. In footnote (17), line 5, for "reaction. ${ }^{15}$ " read "reaction. ${ }^{12}$ "-William E. Truce.

William E. Truce and Max M. Boudakian. Stereospecific Reactions of Nucleophilic Agents with Acetylenes and Vinyltype Halides. II. The Mechanism of the Base-catalyzed Reaction of Vinylidene Chloride with Thiols.
Page 2748. In col. 2, line 11, the ( - ) should be placed over the terminal C.-Wilitam E. Truce.
William E. Truce and Max M. Boudakian. Stereospecific Reactions of Nucleophilic Agents with Acetylenes and Vinyltype Halides. III. The Reactions of cis-Dichloroethylene, Vinylidene Chloride and Vinyl Bromide with Sulfite Ion.

Page 2755. In footnote (36), line 2, for "chloroethylene" read "chloroacetylene."-William E. Truce.
William E. Truce, Harry E. Hill and Max M. Boudakian. Acetylenic Sulfur Compounds. I. Preparation and Characterization of $p$-Tolylmercaptoacetylene and 1-Phenyl-2phenylmercaptoacetylene.
Page 2761. In col. 2, line 32 from the end, for " $480 \mu$ read " $4.80 \mu$."-William E. Truce.

Mary Fieser, Louis F. Fieser, Edmond Toromanoff, Yoshimasa Hirata, Hans Heymann, Melvin Tefft and Sivaprasad Bhattacharya. Synthetic Ermulsifying Agents.
Page 2827. In col. 1, line 22, for "Research" read "Sci-ence."-Louts F. Fieser.
Bernhard Witkop. Imine-Enamine Systems and the Mechanism of their Oxidation.
Page 2874. In col. 2, line 10 , for "amine" read "imine."
Page 2876. In col. 2, formula XXXV, for "HOOC" read "EtOOC." In the formula for vinyldihydroamidine, single rather than double bond between carbon and nitrogen.

Page 2879. In formulas LI and LII the hydroxypyrrolidine ring should be a hydroxypiperidine ring.-BERNHARD Witcor.

Bernhard Witkop and Theodore Beiler. The Conversion of L-Histidine into Hydroxy- and Allohydroxy-proline via erythro and threo-gamma-Hydroxy-L-ornithine.

Page 2884. Structure III should be


III ( $237^{\circ}$ ), trans (or cis-) isomer of II, instead of


III $\left(237^{\circ}\right.$ ), trans (or cis-) isomer of II.-Bernhard Witiof.
Robert P. Frankenthal and Irving Shain. Diffusion Currents at Spherical Electrodes.
Page 2970. In equation (8) the first part should read " $C_{0}(r, t+\Delta t) / C_{0}^{0}$."-Robert P. Frankenthal.
Joseph Weinstock, R. G. Pearson and F. G. Bordwell. Elimination Reactions in Cyclic Systems. IV. cis and trans Elimination in the Cyclohexane and Cyclopentane Series.

Page 3470. In footnote (12) line 2, for "cis" read "trans." -F. G. Bordwell.
Charles P. Farley and Ernest L. Eliel. Chichibabin Reactions with Phenylacetaldehyde. II.

Page 3478, Fig. 1. The formulas in brackets should be dihydropyridines instead of pyridines.-Ernest L. Eliel.
Stephen B. Coan, Bernard Jaffe and Domenick PapaParasympathetic Blocking Agents. III. Phenylglycolic Acid Esters of N-Alkyl-4-piperidinol.
Page 3702. In col. 1, line 2 of the Experimental, for "chelidamic" read "chelidonic."-Strephen B. Coan.
Paul A. J. Janssen. A New Series of Potent Analgesics.
Page 3862. In col. 2, line 11, for "tertiary" read "primary." -Paul Janssen.
Edward F. Casassa. The Conversion of Fibrinogen to Fibrin. XIX. The Structure of the Intermediate Polymer of Fibrinogen Formed in Alkaline Solutions.
Page 3983. Equation 6 should read

$$
\begin{aligned}
P(\theta)= & \frac{1}{2} P(\theta)_{\text {rod }}\left[\frac{J_{1}(2 \mu R)}{\mu R}\right]^{2}\left[1+J_{0}(4 \mu R)\right] \\
& =P(\theta)_{\text {rod }}\left(1-3 \mu^{2} R^{2}+\ldots\right)
\end{aligned}
$$

Page 3983. In footnote 34 , for reference 22 read 28.Edward F. Casassa.
C. R. Stephens, K. Murai, K. J. Brunings and R. B. Woodward. Acidity Constants of the Tetracycline Antibiotics.
Page 4155. In footnote (1), line 2, for " $p K_{\mathrm{a} 1}$ and $p K_{\mathrm{a} 2}$ " read " $p K_{\mathrm{a} 2}$ and $p K_{\mathrm{a} \text { s }}$."
Page 4156. In col. 1, formula VII, the right-hand vertical ring bond should be double instead of single.-C. R. StePHENS.

Martin G. Ettlinger and Allan J. Lundeen. The Structures of Sinigrin and Sinalbin; an Enzymatic Rearrangement.
Page 4178. In col. 2, line 7, for " $R$ 800F." read " $R_{f}$ at $30^{\circ}$."

Edward P. Egan, Jr., and Zachary T. Wakefield. Thermodynamic Properties of Calcium Metaphosphate, 10 to $1400^{\circ} \mathrm{K}$.

Page 4248. Arithmetical errors were made in the calculation of some of the quantities in Tables V, VI and VII.

In the calculation of corrected quantities, $S_{298.16}$ was taken as 35.12 e.u. for the crystals and for the glass, not including the heat of fusion. For the glass including the heat of fusion, $S_{298.16}$ was taken as $35.12+15.86$, or 50.98 e.u. The heat of fusion was assumed to be constant.
The values in the original Table VII were derived from the equations that were listed. In the revised Table VII the values are derived from Table VI by addition of the heat of fusion, 19,820 cal. mole ${ }^{-1}$, to the heat contents and addition of the entropy of fusion at the melting point, 15.86 e.u., to the entropy increments in Table VI.
With the changes in Table VII, the observation that the free energy function for the glass goes through zero at $\Rightarrow 05^{\circ} \mathrm{K}$. should be revised to read $495^{\circ} \mathrm{K}$.

Tables V and VI
Thermodynamic Properties of Calcium Metaphosphate,
Cal. Mole ${ }^{-1}$


Table VII
Thermodynamic Properties of Calcium Metaphosphate Glass (Including Heat of Fusion), Cal. Mole ${ }^{-1}$

| $T,{ }^{\circ} \mathrm{K}$. | $\begin{aligned} & H \mathrm{~T}- \\ & H_{248.16} \end{aligned}$ | $\stackrel{(H \tau}{H_{288.16) / T}^{(H)}}$ | $\underset{S_{298.16}}{S_{\mathrm{T}}-}$ | $\bar{F}_{298.16)}^{(F T} / \bar{T}$ |
| :---: | :---: | :---: | :---: | :---: |
| 298.16 | 19,820 | 66.47 | 15.86 | $-50.61$ |
| 400 | 23,850 | 59.62 | 27.44 | $-19.20$ |
| 500 | 28,080 | 56.16 | 36.86 | 1.28 |
| 600 | 32,660 | 54.43 | 45.20 | 16.42 |
| 700 | 37,450 | 53.50 | 52.58 | 28.35 |
| 800 | 42,420 | 53.03 | 59.22 | 38.17 |
| 900 | 47,550 | 52.83 | 65.26 | 46.52 |
| 1000 | 52,850 | 52.8 .5 | 70.84 | 53.77 |
| 1100 | 58,300 | 53.00 | 76.04 | 60.20 |
| 1200 | 63,870 | 53.22 | 80.88 | 65.97 |
| 1250.16 (m.p.) | 66,700 | 53.35 | 83.20 | 68.66 |
| 1300 | 69,320 | 53.32 | 85.26 | 71.23 |
| $1400^{\text {a }}$ | 74,820 | 53.44 | 89.34 | 76.02 |
| $1500^{\circ}$ | 80,820 | 53.88 | 93.48 | 80.45 |

${ }^{a}$ Extrapolated.
R. G. Jones, E. Bindschadler, G. Karmas, F. A. Yeoman and H. Gilman. Organic Compounds of Uranium. III. Uranium(V) Ethoxide.

Page 4287. In the list of anthors as printed, "Yeoman" was incorrectly given as "Yoeman."
R. G. Jones, E. Bindschadler, G. Karmas, G. A. Martin, Jr., J. R. Thirtle, F. A. Yeoman and H. Gilman. Organic Compounds of Uranium IV. Uranium(V) Alkoxides.
Page 4289. As in the previous item, co-author "Yeoman' was misspelled.

Roger Adams and Maurizio Gianturco. The Structures of Grantianine and Sceleratine. A Suggested Biogenesis of the Acids in the Alkaloids from Senecio and Crotalaria Species.

Page 4462. In col. 2, line 10 from bottom, omit "(or acetoglyceric)".-Roger Adams

Philip S. Skell and Robert C. Woodworth. Structure of Carbene, $\mathrm{CH}_{2}$.

Page 4496. In col. 2, the structures above I and II should be transposed
L. J. Andrews and R. M. Keefer. The Kinetics of the Zinc Chloride-catalyzed Bromination of Polymethylbenzenes in Acetic Acid Solution.

Page 4551 . In Fig. 1, line 1 of the graph should be renumbered to be line 3 , and line 3 renumbered to be line 1 .L. J. Andrews.

Robert K. Ness and Hewitt G. Fletcher. Evidence that the Supposed $3,5-\mathrm{Di}-\mathrm{O}$-benzoyl-1,2-O-(1-hydroxybenzyli-dene)- $\alpha$-D-ribose is Actually 1,3,5-Tri-O-benzoyl- $\alpha$-D-ribose.

Page 4714. In col. 2, lines 7 and 6 above Acknowledg. ment, omit the words "combined" and "and filtrate." Robert K. Ness.
Melvin S. Newman and Daniel Lednicer. The Synthesis and Resolution of Hexahelicene.

Page 4765. In col. 1, formula VI should read "(Ar) $)_{2-}$ $\mathrm{CHCH}\left(\mathrm{CH}_{2} \mathrm{COOH}\right)_{2} . "$

Page 4767. In footnote (12), formula VIa, the lower lefthand group should read " $\mathrm{HOOCCH}_{2}$."-Melvin S. NewMAN.

Harold Kwart and Robert K. Miller. Chlorinolysis of Sulfur-Carbon Bonds in Aryl-Alkyl Sulfides.

Page 5008. In col. 1, text line 5 from the end, for "thiol" read "phenol."

Page 5010. In col. 2, line 43, for " 2,4 -dinitrobenzenethiol" read " 2,4 -dinitrophenol." In line 44, for "thio!" read "phenol."-Harold Kwart and R. K. Miller.
Roger Adams and Maurizio Gianturco. The Alkaloids of Senecio Brasiliensis, Fremonti, and Ambrosioides.

Page 5316. In Col. 1, line 3, after the word "material", and line 14 after the word "ambrosioides," insert "(crystallized once from benzene)."-Roger Adams.
F. G. Bordwell and G. W. Crosby. Sulfonation of Olefins. VII. Sulfonation of 1,1-Diphenyl-2-methyl-1-propene.

Page 5368. In col. 2, formula IX should read " $\mathrm{ClCH}_{2}-$ $\mathrm{CH}_{2} \mathrm{OSO}_{2} \mathrm{OSO}_{2} \mathrm{Cl}$.' -F . G. Bordwell.

John R. E. Hoover and Allan R. Day. Metabolite Analogs. VI. Preparation of Some Analogs of 4-Amino-5-inidazolecarboxamide.

Page 5834. In footnote (8) the ADI Document number is 5072 .

