## Additions and Corrections

Notice to Readers.-For the convenience of those who wish to cut out the corrections and attach them to the margins of the articles corrected, they have been printed upon one side of the page only.

1936, VoL. 58
Francis J. Frere. Equilibrium in Fluoride Systems. I. Solubility of Cryolite in Aqueous Solutions of Iron and Aluminum Salts at $25^{\circ}$.

Page 1696. In the first line of values in Table I, " 0.34 " should read "0.034."-I. Mockrin.

1944, VoL. 66
Marshall Gates. The Condensation of Naphthoquinones with Polar Ethylenes.

Page 129. In col. 1, line 32 from the end, for " 38 mg ." read " 380 mg ."-Marshall Gates.

## 1946, VoL. 68

David T. Mowry, Mary Renoll and W. Frederick Huber. Vinyl Aromatic Compounds. I. The Vapor Phase Dehydration of Arylmethylcarbinols.

Page 1108. In col. 1, line 9 from the end, for " $n{ }^{25} \mathrm{D}$ 1.5670 " read " $n^{25}$ D 1.5167."-David T. Mowry.

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1948, \text { Vol. } 70
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Hans B. Jonassen, John C. Bailar, Jr., and E. H. Huffman. The Stereochemistry of Complex Inorganic Compounds. IX. The Diastereoisomers of dextro-Tartrato-bis-ethylenediamine Cobaltic Ion.

Page 756. In col, 2, line 12 from the end, for " $+2^{\circ}$ and as low as $-46^{\circ}$ " read " $+20^{\circ}$ and as low as $-460^{\circ}$."John C. Ballar, Jr.

William Drell and Max S. Dunn. Inhibition of Lactic Acid Bacteria by Analogs of Pantothenic Acid.

Page 2061. In Table II, line 4, for "Lactobacillus brevis 8257" read "Lactobacillus brevis 8287."-M. S. Dunn.

Sherman Fried and Norman Davidson. The Preparation of Solid Neptunium Compounds.

Page 3546. In col. 1 , line 7 from the end, for " 1944 1945" read "1945."-Sherman Fried.

## 1949, VoL. 71

- L. F. Cavalieri, J. F. Tinker and A. Bendich. A Synthesis of Adenine. The Incorporation of Isotopes of Nitrogen and Carbon.

Page 535. In col. 1, line, for " $\mathrm{Cl}, 38.0$ " read " $\mathrm{Cl}, 32.4$." Line 46 for " 46.5 g ., 0.15 mole$)$ "' read " 29.6 g .0 .318 mole)." Line 49 for " 29.0 g ." read " 35.5 g ." Ref. 9 should read "Lythgoe, Todd and Topham, J. Chem. Soc., 315 (1944)." Col. 2, line 30, calcd. and found values are reversed. Line 37, calcd. and found values are reversed.Libse F. Cavalimin.

Paul G. Haines and E. C. Wagner. The Associative Isomerism of 2,4(5)-Diphenylimidazole.

Page 2797. In col. 2, in the heading below Fig. 5, for " 2,4 -" read " 2,5 -." The 2,4 -diphenyloxazole was prepared from phenacyl bromide and benzamide as described by Lewy, Ber., 20, 2579 (1887).-E. C. Wagner.

Books Received. Page 2954, in the last entry, insert "Vol. V" after "Naturstoffe."
M. L. Wolfrom and H. B. Wood. Racemic Glucose.

Page 3175. In Table I, footnote $a$, for " $1.5148 \AA$.." $\operatorname{read}$ " $1.5418 \AA$."-M. L. Wolfrom.

Gabriello Illuminati and Henry Gilman. The Reactions of Thiols with Some Alkyl and Aryl Heterocyclic Ethers.

Page 3349. As indicated by the data given, the heading to the paragraph following the reactions on page 3349 should read: "2-Quinolyl < 2-Benzothiazolyl $<2$-Benzoxazolyl.'

Page 3351. In col. 1, line 13 from the end, for " $\mathrm{C}_{17} \mathrm{H}_{10}$ ONCl" read " $\mathrm{C}_{11} \mathrm{H}_{10} \mathrm{ONCl}$."-Henry Gilman.
L. H. Clark and G. L. Putnam. The Viscosities of Perchloric Acid Solutions.

Page 3445. The writers regret the unavoidable omission of reference to the publication of Brickwedde, J. Res. Natl. Bureau Standards, 42, 309 (1949). This paper, giving much useful information on the properties of perchloric acid solutions, appeared after submission of our manuscript.-G. L. Putnam.
L. J. Andrews and R. M. Keefer. Cation Complexes of Compounds Containing Carbon-Carbon Double Bonds. IV. The Argentation of Aromatic Hydrocarbons.

Page 3645. In Table I the solubility of diphenylmethane in water at $25^{\circ}$ (g. $/ 100 \mathrm{cc}$. satd. soln.) should read " $1.41 \times$ $10^{-3}$ " instead of " $1.41 \times 10^{-4}$."-L. J. Andrews.
M. L. Wolfrom and A. N. O'Neill. Degradation of Glycogen to Isomaltose.

Page 3857. In footnote 1, for "E. G. W. Percival" read "E. G. V. Percival" and for "1931" read "1932."M. L. Wolfrom.

Ernest L. Eliel. The Reduction of Optically Active Phenylmethylcarbinyl Chloride with Lithium Aluminum Hydride.

Page 3970. In footnote (2) for " 3644 " read " 3664 ."

## 1950, VoL. 72

R. Norman Jones, P. Humphries, E. Packard, and Konrad Dobriner. Studies in Steroid Metabolism, VIII. The Detection and Location of Ethylenic Double Bonds in Steroids by Infrared Spectrometry.

Page 90. Formula I should indicate a trans-ethylene structure. In lines $10-11$ for " $\left(890 \mathrm{~cm} .^{-1}\right)$ " read " $(800-$ $840 \mathrm{~cm} .^{-1}$ )."-R. N. Jones.
K. W. Wilson, John D. Roberts and William G. Young. Allylic Rearrangements. XVII. The Reactions of Butenylmagnesium Bromide with Active Hydrogen Compounds,

Page 215. The series number in the title should be "XXVII."-Joyn D. Roberts.

Marshall Gates. The Synthesis of Ring Systems Related to Morphine. III. 5,6-Dimethoxy-4-cyanomethyl-1,2-naphthoquinone and its Condensation with Dienes.

Pages 228 and 229. Formulas XI and XV should be


XI


XV

Also the formulas for the azine of componncl XVI shonld have the structure

-Marshall Gates
Hussein Sadek and Raymond M. Fuoss. ElectrolyteSolvent Interaction. I. Tetra-butylammonium Bromide in Methanol-Nitrobenzene Mixtures.

Page 304, Fig. 1. The methanol points should be at $-\log K=1.42$ and $10^{8} a=4.46$.

Page 305, Table IV. For No. 1, $K=0.038$ and $a=$ 4.46.-R. M. Fuoss.

John D. Roberts, Richard L. Webb and Elizabeth A. McElhill. The Electrical Effect of the Trifluoromethyl Group.

Page 409. In col. 1, text line 29, for " $\mathrm{C}_{8} \mathrm{H}_{10} \mathrm{NH}_{3}$ " read " $\mathrm{C}_{9} \mathrm{H}_{10} \mathrm{NF}_{3}$." In text line 35 , for " $\mathrm{C}_{8} \mathrm{H}_{10} \mathrm{NF}_{3}$ " read " $\mathrm{C}_{9} \mathrm{H}_{10} \mathrm{NF}_{3}$."

Page 410. In Table IV, data line 2, for " $p-\mathrm{CH}_{3}$ " read " $p$ - $\mathrm{CF}_{3}$."-John D. Roberts.

Martin J. Schick, Paul M. Doty and Bruno H. Zimm. Thermodynamics of Concentrated Polystyrene Solutions.

Page 531. In col. 2, line 13, the thermal expansion coefficient of cyclohexane should read ' 0.00123 ,' instead of ' 0.0123 ."

Page 532. In col. 1 the number in line 7 of the text should be $-1 \times 10^{-2}$ mole-cm. ${ }^{9} / \mathrm{g} .{ }^{4}$. In Table III the heading of the third column should be ' $\mathrm{B}_{2} \times 10^{4}$ mole$\mathrm{cm} \cdot{ }^{9} / \mathrm{g} .{ }^{2}$ ' and the heating of the fourth column should be " $\mathrm{B}_{3} \times 10^{3}$ mole- $\mathrm{cm} .6 / \mathrm{g}$. ${ }^{3}$."

The values given of the virial coefficients represent our best estimates assuming that the higher virial coefficients are not zero. If we had attempted to fit the data in the best manner with only three or four coefficients, somewhat different values would have been found.

We regret having omitted a reference to the work of George V. Browning and John D. Ferry, J. Chem. Phys., 17, 1107 (1949).-Paul Doty and Bruno Zimm.
C. F. H. Allen, Jean V. Crawford, R. H. Sprague, Eleanor R. Webster and C. V. Wilson. 3-Azabenzanthrone Dyes.

Page 586. In Table I, data line 8, for " $\mathrm{C}_{27} \mathrm{H}_{10} \mathrm{~F}_{8} \mathrm{~N}_{2} \mathrm{O}_{4}$ " read " $\mathrm{C}_{87} \mathrm{H}_{19} \mathrm{~F}_{2} \mathrm{~N}_{2} \mathrm{O}_{4}$."-C. F. H. Allen.

Richard C. Gilmore, Jr., and W. J. Horton. The Synthesis of 1-Hydroxycyclohepta[de]naphthalene.

Pages 733 ff . The authors write: "In every case where-cyclohepta [de]naphthalene is mentioned, it should be -7,8,9,10-tetrallydrocyclohepta [de] naphthalene, to conform to Chemical Abstracts nomenclature."-W. J. Horton.
K. J. Palmer and Merle Ballantyne. The Structure of (I) Some Pectin Esters and (II) Guar Galactomannan.

Page 737. In col. 2, text line 1, for "Table II" read "Table I."

Robert F. Raffauf. Furans. II. Ultraviolet Absorption and Molecular Structure.

Page 754. In the legend of Fig. 1, for " $n$ " read " $c$." Omit $\ominus$ on Formula I, change $\ominus$ to right side of Formula $I$, second resonance form, and insert $\ominus$ in place of - on Formula IV, second resonance form. In Formula VI, place the $\oplus$ on the $\alpha$-carbon.

Page 755. In footnote (12) for "with" read "when."Robert F. Raffauf.

William S. Johnson and Robert P. Graber. The Stobbe Condensation with 6-Methoxy-2-propionylnaphthalene. A Synthesis of Bisdehydrodoisynolic Acid.

Page 931. In col. 2, line 27, for " H " read " $\mathrm{CH}_{3}$."Willitam S. Johnson.

Charles A. Burkhard. The Reaction of Mercaptans with Alkenyl Silanes.

Page 1078. In Table I, Compound VIII, Formula " $\left(\mathrm{CH}_{8}\right)_{3} \mathrm{SiOSi}\left(\mathrm{CH}_{2}\right)_{8}\left(\mathrm{CH}_{2}\right)_{8} \mathrm{SCH}_{2} \mathrm{CO}_{2} \mathrm{H}$," should read " $\left(\mathrm{CH}_{3}\right)_{3} \mathrm{SiOSi}\left(\mathrm{CH}_{3}\right)_{2}\left(\mathrm{CH}_{2}\right)_{3} \mathrm{SCH}_{2} \mathrm{CO}_{2} \mathrm{H}$." Compound IX, Formula " $\left(\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{O}\right)_{3} \mathrm{Si}^{( }\left(\mathrm{CH}_{3}\right)_{3} \mathrm{SCH}_{2} \mathrm{CO}_{2} \mathrm{C}_{2} \mathrm{H}_{5}$," should read " $\left(\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{O}\right)_{8} \mathrm{Si}\left(\mathrm{CH}_{2}\right)_{3} \mathrm{SCH}_{2} \mathrm{CO}_{2} \mathrm{C}_{2} \mathrm{H}_{6}$."-Charles A. BurkHARD.
W. von E. Doering and Jerome A. Berson. A Reexamination of the Diisohomogenol Structure.

Page 1120. In col. 1, line 26 , for " $\mathrm{C}_{22} \mathrm{H}_{26} \mathrm{O}_{6}$ " read " $\mathrm{C}_{22} \mathrm{H}_{26} \mathrm{O}_{7}$."

Page 1121. In col. 2, line 17 , for " $\mathrm{C}, 68.37$ " read " C , 68.87."-Jerome A. Berson.

Marshall Gates, R. B. Woodward, W. F. Newhall and Rosemarie Künzli. The Synthesis of Ring Systems Related to Morphine. IV. N-Methylisomorphinane.

Page 1144. In column 2, the next to last line of the description of the preparation of 4-cyanomethyl-1,2-naphthoquinone (XV), ( $16 \%$ ) should read ( $61 \%$ ), and in the fifth line of the description of the preparation of 9,10-dioxo-13-cyanomethyl-5,8,9,10,13,14-hexahydrophenanthrene 11.5 g. should read 15.9 g .-Marshall Gates.
R. A. Day, Jr., A. E. Robinson, Jr., J. M. Bellis and S. B. Till. Oxidation Potentials and Ultraviolet Absorption Spectra of a Series of Normal Ketones.

Page 1379. The authors write: "The data on the ultraviolet absorption spectra of the aliphatic ketones are not reliable, because the ketones were not spectroscopically pure. Rice (Proc. Roy. Soc. (London), 91A, 76 (1914)), in an article which we carelessly overlooked, proved that when a saturated aliphatic ketone showed absorption on the ultraviolet side of the carbonyl band, a highly absorbing impurity, not removed by distillation, was present. Chemical purification seems to be necessary in order to remove this impurity. No quantitative significance should be given to our results. However, the qualitative conclusions which were made in our article seem to be valid. Rice reported that the wave length of maximum absorption shifted from $275 \mathrm{~m} \mu$ for acetone to $282 \mathrm{~m} \mu$ for di-n-propyl ketone. The only significant changes he found in molar absorption indices were between acetone (17.1) and methyl ethyl ketone (19.4). All larger ketones showed a constant value of 21.2."-R. A. DAy, JR.

Robert H. Jordan and Robert E. Lutz. The Preparation of 4-Ethyl-2-methoxy-2-phenylmorpholine.

Page 1411. The caption under Figs. 2-3, reading "Crys. from $\mathrm{CH}_{3} \mathrm{OH}$," should come under Figs. 3-4. The samples giving Figs. 1 and 2 were crystallized from isopropyl alcohol, and those giving Figs. 3 and 4 were crystallized from methanol.-Robert E. Lutz.

Edgar C. Suratt, John R. Proffitt, Jr., and Charles T. Lester. Rate of Formation of Some Aryl Alkyl Ketones.

Page 1561. In Table I, Col. 4, line 4, for " 21.5 ' read "'23.2."' In line 8 , for ' 1.05 " read " 1.15 .'"-Chas. T. Lester.

Reynold C. Fuson and Harold L. Jackson. Conjugate Addition of Mesitylmagnesium Bromide to Ethyl 2,4,6Trimethylcinnamate and to Mesitalacetomesitylene.
Page 1637. The last word of this title should read "Mesitalacetophenone."-Reynold C. Fuson.

Douglas O. Dean, William B. Dickinson, Osborne R. Quayle and Charles T. Lester. sym-Tetraphenylacetone. A Study of its Synthesis.

Page 1741. In col. 2, line 7, for " $0.0227 M$. ${ }^{11}$ " read " 0.0227 M. $1{ }^{15}$ "'-Chas. T. Lester.

Llewellyn H. Welsh. 3-(4-Amino-3,5-dibromobenzoyl)1 -di- $n$-butylaminopropane Picrolonate.

Page 1863. In col, 2, next to last line, for "<" read " $>$."
Simāo Mathias. Refractivity and Molecular Structure. III. Isomeric Propyl and Butyl Mercaptans.

Page 1901. In col. 2, the equation at the end should read " $\nu=(1 / 2 \pi c) \sqrt{k / \mu}$."
G. L. Sauvage and V. Boekelheide. $\beta$-Erythroidine. II. The Conversion of $\beta$-Erythroidine to Derivatives of the Desmethoxy Series.

Page 2062. In Col. 2, line 28 should read "This matcrial, which is isomeric with desmethoxy- $\beta$-erythroidine, has been assigned the name apo- $\beta$-erythroidine. ${ }^{10}$ - V . Boekelheide.
V. Boekelheide and C. Ainsworth. Curariform Activity and Chemical Structure. VI. Syntheses in the $\beta$ - and $\boldsymbol{\gamma}$-Carboline Series.
Page 2133. In Col. 1, formulas VII and VIII should refer to the structure.

V. Boekelheide and C. Ainsworth. Curariform Activity and Chemical Structure. VII. Some 1-Skatylisoquinoline Derivatives and a Novel Method for their Synthesis.

Page 2135. In Col. 2, formula XII should be

.-V. Boekelheide.

Edward Sherman and E. D. Amstutz. Reactions in the $\beta$-Furan Series-Synthesis and Reactions of 3 -Chloromethylfuran and Some Related Compounds.

Page 2196. In column 1, paragraph 2, the second sentence should read "It has been reported" ${ }^{1}$," rather than "It has not been reported ${ }^{11}$-." In the reaction scheme in column 2, the reagent effecting the transformation VI to X should read " $\mathrm{CH}_{2} \mathrm{O}$."

Page 2198. In column 2, the first analysis should read "-Found:-; neut. equiv., 127.1."

Page 2199. In column 1, footnote 26 should read "Reported ${ }^{24}$-."-EdWARD ShERMAN.
.Harold L. Friedman and Henry Taube. Observations on the Chlorogallates and Related Compounds.

Page 2238. In col. 1, line 10, substitute " $\mathrm{KAICl}_{4}$ " for " $\mathrm{KGaCl}_{4}$."-Harold L. Friedman.
W. D. English and R. V. V. Nicholls. Further Applications for Egloff's Boiling Point Equation.

Page 2765. In Table V, the second data line should have "Diethylsilane" instead of "Dimethylsilane."-W. D. English.

Peter A. S. Smith and Bruce Ashby. The Influence of Substituents on the Schmidt Reaction on Some Benzophenones.

Page 2503. Due to trilateral oversight, footnote (1) should read " 72,3718 (1950)," which paper experimentally precedes this one. The printed citation is to an unrelated paper by the same authors.

John C. Sheehan and William A. Bolhofer. An Improved Procedure for the Condensation of Potassium Phthalimide with Organic Halides.

Page 2787. In Table I, the third entry should be: $\mathrm{H}_{5} \mathrm{C}_{2} \mathrm{O}_{2} \mathrm{CCHCH}_{2} \mathrm{CH}_{2} \mathrm{CH}_{2} \mathrm{CH}_{2} \mathrm{CO}_{2} \mathrm{C}_{2} \mathrm{H}_{5}$ diethyl $\alpha$-phthal-
imidopimelate instead of: $\mathrm{H}_{5} \mathrm{C}_{2} \mathrm{O}_{2} \mathrm{CCHCH}_{2} \mathrm{CH}_{2} \mathrm{CH}_{2} \mathrm{CO}_{2}-$

$\mathrm{C}_{2} \mathrm{H}_{5}$, diethyl $\alpha$-phthalimidoadipate.-John C. Sheehan.
Charles C. Price and Dwight C. Lincoln. 3-Amino-4-ethyl-, 3-Amino-4-t-butyl- benzoic Acids and 4-Bromo-3-tbutylaniline.
Page 2807. In the title and in text line 17 from the end, for " $-3-t-$ "' read " $-2-t-$."-Charles C. Price.

William Shive, Thomas J. Bardos, Thomas J. Bond and Lorene Lane Rogers. Synthetic Members of the Folinic Acid Group.
Page 2817. In the last line, for " $0.00001 \gamma$ ' read " $0.0001 \gamma$."-William Shive.
M. L. Wolfrom and Rex Montgomery. Acetylative Desulfation of Carbohydrate Acid Sulfates.
Page 2861. In column 1, line 4, for ' 2 g.' read ' 3 g.' M. L. Wolfrom.

Robert B. Corey and Jerry Donohue. Interatomic Distances and Bond Angles in the Polypeptide Chain of Proteins.

Page 2899. Table I, third line from bottom, for "118 121" read "118 114."-Robert B. Corey.
L. J. Andrews and R. M. Keefer. Cation Complexes of Compounds Containing Carbon-Carbon Double Bonds. The Argentation of Substituted Benzenes.
Page 3115. In Col. 1, in the two lines following equation (4), $K_{1}$ and $K_{1}$, should be interchanged.-L. J. Andrews.

John D. Roberts, E. R. Trumbull, Jr., Winifred Bennett and Rose Armstrong. The Reaction of Norbornylene with N -Bromosuccinimide. Nortricyclene and its Derivatives.

Page 3120. In col. 2, lines 7-8-9-10 should read "The proton of the catalyzing acid (HA) may be added at either $\mathrm{C}-2$, resulting in cleavage between $\mathrm{C}-1$ and $\mathrm{C}-2$, or at $\mathrm{C}-6$, resulting with cleavage between $\mathrm{C}-1$ and $\mathrm{C}-6 .{ }^{\prime \prime}-$-Jонn D . Roberts.
S. M. McElvain and John C. Safranski, Jr. Piperidine Derivatives. XXIII. Certain Halogenated 1-Methyl-4phenylpiperidines and Related Compounds.
Page 3134. In col. 1, at the end, Formulas IV, V and VI, should be 1 -methyl-4-phenyl-tetrahydropyridines instead of 1 -phenyl-4-methyl-tetrahydropyridines.-S. M. McElvain.

Richard S. Brokaw and Robert N. Pease. The Kinetics of the Reaction of Aluminum Borohydride Vapor with Olefins.

Page 3238. The cut part of Fig. 2 is inverted.-R. N. Pease.

Harold L. Friedman and Henry Taube. Solutions of Anmonium Chlorogallate in Diethyl Ether.
Page 3363. The first figure (titled "Association of .. "') should be "Fig. 2"' and the following figure should be "Fig. 1."

Gâbor Fodor and J. Kiss. Acyl Migration $\mathrm{O} \rightarrow \mathrm{N}$ in the Diasteromeric 2-Aminocyclohexyl Benzoates.

Page 3497. The received date of this paper should be "'September 29, 1949."
R. L. Rowland, Wendell L. Perry, E. Leon Foreman and Harris L. Friedman. Mercurial Diuretics. I. Addition of Mercuric Acetate to Allyl Urea.

Page 3597. In Table I, Compound 8, the melting point should be " $135-137$ ") instead of " $162-163^{\circ}$."Ralph L. Rowland.

Book Review. "The Chemical Bond and the Structure of Molecules." By Y. K. Syrkin and M. E. Dyatkina.

Page 4337. In col. 1, line 17, for "Tables on pp. 129137" read "Tables 78-85 in the Russian original, Tables LXXX-LXXXVII in the English translation."-Kasimir Fajans.

Book Review. "Structure of Molecules and the Chemical Bond." By Y. K. Syrkin and M. E. Dyatkina.

Page 4337. In col. 2, line 4, for "hydrates" read "hydrides."-Kasimir Fajans.
W. P. Binnie, H. L. Cohen and George F Wright. Tripotassium 1,3,5-Triazacyclohexanc-1,3,5-trisulfonatc.

Page 4457. In col. 2, Equation (2) at the end read " $\mathrm{KHSO}_{4}$ " instead of " $\mathrm{KNSO}_{4}$."

Page 4458. In col. 1, lite 30, for " Space group $\mathrm{C}^{5}{ }_{2 \mathrm{~L}}$ -
 Wright.

George T. Gmitter and F. Lee Benton. The Preparation and Properties of Some Thienyl Butenols.
Page 4587. Formula (I) should read " $\mathrm{Th}-\mathrm{CH}_{2}-\mathrm{CH}=$ $\mathrm{CH}-\mathrm{CH}_{2} \mathrm{OH}$."-F. L. Benton.

Ray F. Palmer and Allen B. Scott. A Direct-Current Conductance Method.
Page 4821: Column 2. The authors state: "Due to an oversight, reference to the excellent work of Gordon and his co-workers in the development of direct-current methods was overlooked. The agreement between a.c. values and the d.c. values of Gunning and Gordon, J. Chem. Phys., 10, 126 (1942), and later papers is highly satisfac-tory."-A. B. Scort.

