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.

1933, VOL. 55

Victor K. La Mer and W. George Parks. The Partial and Integral Heats of Dilution of Cadmium Sulfate Solutions from Electromotive Force Measurements.

Page 4349. In Table V, the 20° values in the last four columns should read: 0.0207 instead of 0.0144; 0.323 instead of 0.358; 5,236 instead of 5,789; and 3,579 instead of 3,858.—VICTOR K. LA MER.

1937, VOL. 59

C. S. Fuller and C. L. Erickson. An X-Ray Study of Some Linear Polyesters.

Page 347. In Fig. 1(e) and (f) "the fiber axis directions on the X-ray fiber patterns of trimethylene sebacate and diethylene sebacate polyesters were inadvertently rotated through 90 degrees."

Page 348. As a result of the error on Page 347, these corrections are needed in Table II: "The correct lengths corresponding to the chemical repeating units are 15.4 ± 0.1 Å. and 17.8 ± 0.1 Å. for trimethylene and diethylene sebacate, respectively. The fiber periods or lengths of the X-ray repeating units along the fiber axis are probably multiples of these values. The designation of the various reflections in Table II is also erroneous. The general conclusions reached previously in regard to the chain configurations in the solid state of the two esters in question are not altered essentially by these corrections. As in the case of the results previously reported, the above values of the lengths of the chemical repeating units necessitate a considerable shortening of the planar zigzag chain configuration. Present evidence, however, favors a uniform "tub" form of chain instead of one in which the shortening occurs entirely in the glycol portion of the ester as was previously suggested."—C. S. FULLER.

K. A. Krieger and Martin Kilpatrick. The Conductance of Mixtures of Strong Electrolytes.

Page 1879. Column 1, line 18 for "in 1 kg. of water" read "in 1 kg. of solution." The effect of this error is to make the cell constant and the quantities dependent upon it slightly too large. The following changes should therefore be made to convert our conductances to the Jones and Bradshaw standard:

Page 1880. The values in Table I in the columns headed Λ_K(obsd.) and Λ_K(calcd.) and the left member of equation (2) should be reduced by 0.068%.

Page 1881. Column I, following line 18. The column marked Λ(obsd.) should be reduced by 0.068%.

Page 1882. Table III. The values in the column headed 1000 $C_{sp.}$(obsd.) should be reduced by 0.068%. In Table II, Λ_1° becomes 38.59 and ω_{12} and ω_{31} change correspondingly. This change in cell constant enters into the mixture effect in a rather complicated way, the values in Table III, under the heading $\Delta C_{sp.}$ (%) obsd., becoming, reading downward: +0.01, −0.04, −0.09, −0.01, −0.13, −0.04, −0.11, −0.04, −0.08, −0.04, −0.04, −0.07, −0.10, −0.06, −0.09, −0.09, −0.09, −0.10, and −0.12.

It will be observed that the corrected values are in better agreement with the theoretical values than those previously reported. With the exception of three points, the agreement is probably within the experimental error, although the observed values seem to fall consistently below the calculated ones (numerically) at the higher concentrations.—K. A. KRIEGER.

1938, VOL. 60

F. F. Blicke and R. A. Patelski. Hydroxy- and Methoxyphenylanthrones. I.

Page 2640. In column 2, line 2 from end, for "Ethyl 2-(2′-Methoxybenzoyl)-benzoate" read "Ethyl 2-(2′-Methoxybenzyl)-benzoate."

In column 2, line 1 from end, for "2-(2′-methoxybenzoyl)-benzoic acid" read "2-(2′-methoxybenzyl)-benzoic acid."

Page 2641. In column 1, line 16, for "ethyl 2-(2′-methoxybenzoyl)-benzoate" read "2-(2′-methoxybenzyl)-benzoate."—F. F. BLICKE.

Philip G. Stevens, W. Edward Higbee and Robert T. Armstrong. The Influence of Branched Chains on Optical Activity. The Configuration of Propyl-*t*-butylcarbinol, with a Note on the Relation between Rotatory Power and Chemical Character.

Page 2659. In Table III, 5th line, 3rd column, read −0.72 instead of +0.72.—PHILIP G. STEVENS.

E. Bergmann. The Dimerization of 3-Phenylindene.

Page 2816. The formula shown here should have a double bond between the second and third carbon in the left-hand indene ring.

Roger Adams, T. A. Geissman and R. C. Morris. Structure of Gossypol. XVII. Nitration Products of Gossypol Hexamethyl Ether, Gossypolone Tetramethyl Ether and Gossypolonic Acid Tetramethyl Ether.

Page 2971. In column 2, under heading "Oxidation of Compound IV to, etc." line 8, for "Compound V" read "Compound IV" and line 11, for "Compound V" read "Compound VI."—ROGER ADAMS.

Walter A. Hynes, Leo K. Yanowski and Morris Schiller. A Modified Method for the Preparation of Monochloropentamminocobaltic Chloride (Purpureocobaltic Chloride).

Page 3053. "The method described here duplicates almost exactly one proposed by Willard and Hall in their paper, 'The Separation of Cobalt by means of Phenylthiohydantoic Acid,' THIS JOURNAL, **44**, 2219 (1922). Since the method of Dr. Willard was mentioned as a mere incidental to the balance of the work reported and was not indicated in the published title of his article, we had not included his article in our list of literature references."—W. A. HYNES.

George Scatchard, W. J. Hamer and S. E. Wood. Isotonic Solutions. I. The Chemical Potential of Water in Aqueous Solutions of Sodium Chloride, Potassium Chloride, Sulfuric Acid, Sucrose, Urea and Glycerol at 25°.

Page 3066. The points at concentrations above 1 *M* representing the measurements of Frazer and Norris in Fig. 1 and those of Lovelace, Frazer and Sease in Fig. 2, should be lowered about 0.004.

Page 3068. In column 1, line 5 from bottom, for "0.65 cal./mole" read "43 cal./mole."—GEORGE SCATCHARD.

1939, VOL. 61

Dorothy Nightingale and Lee Irvin Smith. The Action of Aluminum Chloride on Aromatic Hydrocarbons. I. The 1,3-Dimethyl-4-butylbenzenes.

Page 102. In column 1, the diagram should read:

1,3-dimethyl-4-*n*-butylbenzene ⟶ 1,3-dimethyl-5-*s*-butylbenzene

1,3-dimethyl-4-*s*-butylbenzene, 1,3-dimethyl-4-*t*-butylbenzene ⟶ 1,3-dimethyl-5-*t*-butylbenzene

—DOROTHY NIGHTINGALE and LEE IRVIN SMITH.

G. P. Baxter (Chairman), M. Guichard, O. Hönigschmid and R. Whytlaw-Gray. Ninth Report of the Committee on Atomic Weights of the International Union of Chemistry.

Page 225. In the ninth report of the Committee on Atomic Weights of the International Union of Chemistry through an unfortunate error the uncertainty in the composition of purpureo ruthenium chloride estimated by Gleu and Rehm (*Z. anorg. allgem. Chem.*, **235**, 352 (1937)) is given as 0.1–0.2 per cent. instead of 0.01–0.02 per cent., and the uncertainty in the atomic weight of ruthenium as 0.3 unit instead of 0.03 unit. In spite of this optimistic estimate by Gleu and Rehm, the Committee feel that further experimental evidence is necessary before making any change in the atomic weight of ruthenium in the Table.—G. P. BAXTER.

Joseph R. Spies and Thomas H. Harris, Jr. Some Salts of 2-Oxy-6,8-diaminopurine.

Page 352. In column 1, line 1 (after table), for "ninety-three milligrams" read "nine hundred and thirty milligrams."—JOSEPH R. SPIES.

Harold Hibbert. Studies on Lignin and Related Compounds. XXXVII. The Structure of Lignin and the Nature of Plant Synthesis.

Page 729. In column 2, line 9, for "IV" read "VI."—HAROLD HIBBERT.

Edward S. Amis and Victor K. La Mer. The Entropies and Energies of Activation of Ionic Reactions. The Kinetics of the Alkaline Fading of Brom Phenol Blue in Isodielectric Media.

Page 910. "In Table IV, columns $k_{k=0}$ and Log $k_{k=0}$ for 31.5% EtOH should read 0.971 and −0.013, respectively; for 42.8% MeOH, the corresponding values are 0.935 and −0.029."—VICTOR K. LA MER.

Roger Adams and Madison Hunt. Structure of Gossypol. XIX. Synthesis of 1,2-Dihydroxy-3-isopropyl-6-benzoic Acid.

Page 1132. Column 1, line 2, for "apogossypolic acid (II)" read "apogossypolic acid (V)."—ROGER ADAMS.

Roger Adams and B. R. Baker. Structure of Gossypol. XXI. Synthesis of 1,2-Dimethoxy-3-isopropyl-4-benzoic Acid and of Apogossypolic Acid.

Page 1139. In column 2, line 10 from bottom, read "b. p. 157–158°" for "b. p. 157–168°."

Page 1140. In column 1, line 13 from top, read "added 5 g. of magnesium" for "added 1 g. of magnesium."

Page 1141. In column 1, last line, read "α-bromoacetate" for "α-bromopropionate."—ROGER ADAMS.

F. F. Blicke and H. C. Parke. Alkylaminoalkyl Esters of Aminonaphthoic Acids as Local Anesthetics.

Page 1202. In Table II, the melting point of compound 6 should read "203–204°" instead of "114–115°."—F. F. BLICKE.

Manfred Kiese and A. Baird Hastings. The Dissociation Constant of Hypobromous Acid.

Page 1291. Line 4. "The statement regarding the absence of data on the dissociation constant of hypobromous acid is in error. Shilov and Gladtchikova, THIS JOURNAL, **60**, 490 (1938), R. M. Chapin, *ibid.*, **56**, 2211 (1934), and A. Skrabal and R. Skrabal, *Monatsh.*, **71** 273 (1938), have found values for the constant."—MANFRED KIESE and A. BAIRD HASTINGS.

Herbert I. Bernstein and Frank C. Whitmore. The Common Basis of Intramolecular Rearrangements. V. Inversion of Configuration in Semipinacolic Deamination. The Configurational Relationship between (+)-Alanine and (+)-Methylphenylacetic Acid.

Page 1324. Column 1. "The first carbon in the second formula is left electronically deficient by the removal of the amino group with complete octet. This should be indicated by six dots and an asterisk."—F. C. WHITMORE.

Herbert S. Harned and Calvin Calmon. The Properties of Electrolytes in Mixtures of Water and Organic Solvents. I. Hydrochloric Acid in Ethanol- and Isopropanol–Water Mixtures of High Dielectric Constant.

Page 1492. The sign on the right of equation (4) should be changed to +, that on the right of equation (5) to −. This error affects the results in columns headed E_c^0 and E_N^0 in the last two columns of Table III (page 1493).—HERBERT S. HARNED.

Frank T. Gucker, Jr., and Charles E. Moser. The Coefficient of Expansibility of Aqueous Solutions of Urea at 27.5° Calculated from the Densities at 25 and 30°.

Page 1558. Column 2. In equation 6 the last term should read:

$$\frac{1}{d_1}\left[\frac{\partial A_2}{\partial T} - 2A_3\alpha_1 + \frac{A_2}{d_1}\left(\frac{\partial A_1}{\partial T}\right)\right]c^3 + \ldots \qquad (6)$$

—FRANK T. GUCKER, JR.

M. S. Kharasch, Cheves Walling and Frank R. Mayo. The Addition of Hydrogen Halides to *cis*- and *trans*-2-Pentene.

Page 1562. In Table II the various temperatures marked 75, 78 and 80 indicate the temperature of an acetone–solid carbon dioxide bath and should be prefixed by a minus sign.—CHEVES WALLING.

Louis F. Fieser and William S. Johnson. Syntheses in the 1,2-Benzanthracene and Chrysene Series.

Page 1652. Column 1, line 5, for "5-Methyl-8-keto-3,4,5,6,7,8-hexahydrophenanthrene (IX)" read "5-Methyl-8-keto-3,4,5,6,7,8-hexahydro-1,2-benzanthracene (IX)."—L. F. FIESER.

Cheves Walling, M. S. Kharasch and F. R. Mayo. The Peroxide Effect in the Addition of Reagents to Unsaturated Compounds. XX. The Addition of Hydrogen Bromide to 2-Butyne and 2-Bromo-2-butene.

Page 1711. In footnote (4) for "see ref. 7" read "see ref. 9."—CHEVES WALLING.

Philip G. Stevens. The Rearrangement of α-Hydroxy Carbonyl Compounds.

Page 1714. Column 1, line 13, for "Fischer's discovery" read "the discovery by Fischer, Taube and Baer." Column 1, footnote (3), for "Fischer, *ibid.*" read "Fischer, Taube and Baer, *ibid.*"—PHILIP G. STEVENS.

James J. Lingane. Thermodynamic Significance of Polarographic Half-Wave Potentials of Simple Metal Ions at the Dropping Mercury Electrode.

Page 2102. "Due to an error in respect to concentration units the calculated average value of k, 0.005 mole fraction per microamp., given in the concluding paragraph is incorrect. The correct average value of k is 5×10^{-6} mole fraction per microamp., or 0.3 millimole per liter of amalgam per microamp. As a consequence the statements in the concluding paragraph are incorrect. The rate of diffusion of the deposited metal atoms in the mercury drops is about equal to that of the reducible metal ions in the solution, and not much slower, as was previously concluded."—JAMES J. LINGANE.

M. L. Wolfrom, D. R. Myers and E. N. Lassettre. The Molecular Size of Starch by the Mercaptalation Method.

Page 2175. Column 2, line 1, in the formula for "%S +" read "%S ×."—M. L. WOLFROM.

James J. Pyle, Leo Brickman and Harold Hibbert. Studies on Lignin and Related Compounds. XLIV. The Ethanolysis of Maple Wood; Separation and Identification of the Water-Soluble Aldehyde Constituents.

Page 2201. In column 1, after the formulas, insert: **"Possible Role of Vanilloyl- and Syringoylacetaldehydes in the Synthesis of Plant Pigments.**—It was shown some years ago by Bülow and Sicherer[9] that benzoylacetaldehyde, in the presence of acids, readily undergoes condensation with a variety of phenols (resorcinol, phloroglucinol, etc.)."

(9) Bülow and Sicherer, *Ber.*, **34**, 3889 (1901).

—HAROLD HIBBERT.

Kinney Hancock and H. L. Lochte. Acidic Constituents of a California Straight-run Gasoline Distillate.

Page 2451. Column 2, first table, first column head should read "*d*-Camphonanic."—H. L. LOCHTE.

Louis F. Fieser. Synthesis of 2-Methyl-3-phytyl-1,4-naphthoquinone.

Page 2560. Column 1. "The last figure of the caption to Fig. 1 should read 3.42 in place of 2.42."—L. F. FIESER.

Daniel B. Clapp. The Reaction of a Thiophene Derivative with Maleic Anhydride.

Page 2735. In line 18, column 2, read "stilbene" for "maleic anhydride."—DANIEL B. CLAPP.

Roger Adams and E. F. Rogers. The Structure of Monocrotaline, the Alkaloid in *Crotalaria Spectabilis* and *Crotalaria Retusa*. I.

Page 2817. To Table II add:

	Alkaloid	Alkanolamines	Acid
Senecio integerrimus[13]	Integerrimine, $C_{18}H_{25}O_5N$	Retronecine	Integerrinecic acid, $C_{10}H_{16}O_5$
spartioides[13]	Senecionine Seneciphylline Spartioidine, $C_{18}H_{23}O_5N$		
longilobus[13]	Longilobine, $C_{18}H_{23}O_5N$	Retronecine	Longinecic acid, $C_{10}H_{14}O_5$
ridellii	Ridelliine, $C_{18}H_{23}O_5N$		
Erechtites hieracifolia[14]	Hieracifoline, $C_{18}H_{25}O_5N$	Retronecine	Hiercinecic acid $C_{10}H_{16}O_5$

—ROGER ADAMS.