

**3- and 5-Substituted 1- $\beta$ -D-Ribofuranosyl-1,2,4-triazoles** [*J. Amer. Chem.*, **94**, 5894 (1972)]. By GEORGE P. KREISHMAN, JOSEPH T. WITKOWSKI, ROLAND K. ROBINS, and MARTIN P. SCHWEIZER,\* ICN Nucleic Acid Research Institute, Irvine, California 92664.

In footnote *d* of Table I,  $\beta$  should be given as  $-2$  ppm.

**Mechanisms of Chemiluminescent Electron-Transfer Reactions. IV, V, and VI** [*J. Amer. Chem. Soc.*, **94**, 6317, 6324, 6331 (1972)]. By RICHARD BEZMAN and LARRY R. FAULKNER,\* Coolidge Chemical Laboratory, Harvard University, Cambridge, Massachusetts 02138.

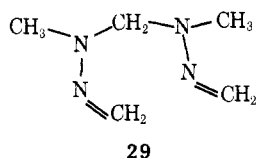
We have recently discovered an error in our calibration of the photometric system used in the work reported in the three papers listed above. Instead of the previously reported value of  $6.46 \times 10^{10}$  photons/sec- $\mu$ A, the system's true sensitivity is  $3.48 \times 10^{11}$  photons/sec- $\mu$ A. This discovery requires upward revision in some of the data at hand. All emission efficiencies,  $\phi_{\text{ecl}}$ , all values of  $\alpha$  and  $\beta$ , and all estimates of triplet yields,  $\phi_t$ , should be multiplied by 5.4. Estimates of fractional triplet participation in triplet-triplet annihilation and the suggested equilibrium constant for 10-MP dimer cation formation are unchanged. Fortunately, none of the basic mechanistic conclusions are vitiated by this revision, and some are actually reinforced.

**Stable Uranium(IV) Alkyl and Aryl Complexes** [*J. Amer. Chem. Soc.*, **94**, 6545 (1972)]. By TOBIN J. MARKS\* and AFIF M. SEYAM, Department of Chemistry, Northwestern University, Evanston, Illinois 60201

On page 6546, line 18 of column 1 should begin: "half-lives of 2-96 hr at 72° . . ."

**Electrochemical Oxidation of Tetraalkylhydrazines. Effects of Hydrazine and Hydrazine Radical Cation Geometry** [*J. Amer. Chem. Soc.*, **94**, 7108 (1972)]. By S. F. NELSEN\* and P. J. HINTZ, Department of Chemistry, University of Wisconsin, Madison, Wisconsin 53706.

Structure **29**, supposed by us to be *endo*-methylene-1,4-dimethylhexahydro-1,2,4,5-tetrazine, is undoubtedly incorrect; we actually had the isomer methylenebis(*N*-methyl-*N'*-methylenehydrazine), as given below.



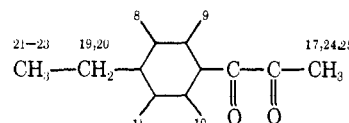
Our data check well with that of the literature [E. Schmitz and R. Ohme, *Monatsber. Deut. Akad. Wiss., Berlin*, **6**, 425 (1964)]; Dr. Hammerum has determined the nmr spectrum of authentic **29**, and it checks well with ours, as well as with other formaldehyde hydrazones: S. Hammerum, *Tetrahedron Lett.*, 949 (1972)]. We thank Dr. Steen Hammerum for pointing out our error. It is not surprising, then, that **29** gives an irreversible oxidation wave, since it is not a tetraalkylhydrazine after all.

**A Kinetic Investigation of Some Electronic and Steric Factors in Oxidative Addition Reactions to Vaska's Compound** [*J. Amer. Chem. Soc.*, **94**, 7364 (1972)]. By R. UGO,\* A. PASINI, A. FUSI, and S. CENINI, Istituto di Chimica Generale ed Inorganica, C.N.R. Centre, Milan University, Milan, Italy.

In Table III, the first seven entries in the Z column should read OCH<sub>3</sub> rather than CH<sub>3</sub>.

**Electron Spin Resonance Study of Air Oxidation of *p*-Alkyl-Substituted Phenones in Hexamethylphosphoramide. Orientation of Carbanion Formation. Extension to the Oxidation of Aromatic Cyano, Nitro, and Aldehydo Compounds** [*J. Amer. Chem. Soc.*, **94**, 7520 (1972)]. By JACQUES-EMILE DUBOIS\* and GUY DODIN, Laboratoire de Chimie Organique Physique de l'Université Paris VII, associée au Centre national de la Recherche Scientifique, Paris, France.

The fourth structure in Chart I is incorrect. The correct structure is given below.



On page 7525, in line 9 of column 2 "increase" should read "decrease."

**A Direct Method for Determining Light Intensity Dependent Rates. Triplet-Triplet Annihilation in Benzophenone** [*J. Amer. Chem. Soc.*, **94**, 8584 (1972)]. By RONALD E. BROWN, LAWRENCE A. SINGER,\* Department of Chemistry, and JOEL H. PARKS, Department of Physics and Electrical Engineering, University of Southern California, Los Angeles, California 90007.

On page 8584, line 25 of column 2 should read: "and  $\alpha$  is a constant, which follows from the rate equation for singlet population and the intersystem crossing efficiency,  $S_1 \rightarrow T_1$ , and thereby converts  $I(0,0)$  into units of triplet concentration." Equation 6 should read

$$n(t) \equiv \int_0^t n(t,x) dx = [\alpha I(0,0) e^{-k_1 t} (1 - e^{-\beta t})] / \beta$$

On page 8585, line 7 of column 1 should read: "where  $S$  is the cross-sectional area of the irradiated volume." In eq 14, the differential "dt" was omitted. Equation 24 should read:

$$f(x) = I_v/I_v(0) = \{\ln [1 + \Delta(1 - e^{-x})]\} [\Delta(e^x - 1)]^{-1}$$

In footnote 6, line 11, replace  $X$  with  $x$ . The abscissa in Figure 1 should read "Exponential Factor  $k_1 t = x$ ."

These corrections have no effect on the results or conclusions.

**A Novel Photochemical Rearrangement of Aryl-6,7-dioxabicyclo[3.2.2]nona-3,8-dien-2-one into Tricyclic Lactone** [*J. Amer. Chem. Soc.*, **94**, 9280 (1972)]. By T. TEZUKA,\* R. MIYAMOTO, T. MUKAI, C. KABUTO, and Y. KITAHARA, Department of Chemistry, Faculty of Science, Tohoku University, Sendai, Japan.

On page 9281, column 2, in the seventh line from the bottom, the conventional *R* should read 0.07 instead of 0.70.

**An Approach to Tetrahedrane. Pyrolysis of the Dilithium Salt of *trans*-Butenedial Bistosylhydrazone** [*J. Amer. Chem. Soc.*, **95**, 623 (1973)]. By LYNN B. RODEWALD\* and HAK-KI LEE, Department of Chemistry, The University of Texas at Austin, Austin, Texas 78712.

The mass spectrometer which was employed and referred to in footnote 9 was a CEC Model 21-110, not a

CEC Model 21-102 as reported. Additionally, sufficiently high resolution was maintained to avoid interference at *m/e* 28 by CO and N<sub>2</sub>.

**Facile and Reversible Homolysis of Iron–Germanium, –Tin, and –Lead Bonds by Lewis Bases** [*J. Amer. Chem. Soc.*, **95**, 769 (1973)]. By TOBIN J. MARKS\* and ALAN R. NEWMAN, Department of Chemistry, Northwestern University, Evanston, Illinois 60201.

The name of the first new compound synthesized in the Experimental Section (fourth paragraph) should be di- $\mu$ -di-*tert*-butylstannylene-bis(tetracarbonyliron).

## Book Reviews\*

**Analysis Instrumentation. Volume 10.** Edited by R. L. CHAPMAN (Beckman Instruments, Inc.), G. A. MCNEILL (Monsanto Co.), and A. M. BARTZ (Dow Chemical Co.). Instrument Society of America, Pittsburgh, Pa. 1972. 234 pp. \$15.00.

This softbound volume contains the Proceedings of the 18th Annual ISA Analysis Instrumentation Symposium (May 1972), containing 32 papers emphasizing process and environmental instrumentation. There are also cumulative subject and author indexes for 1954–1971.

**Atlas of Protein Sequence and Structure 1972. Volume 5.** Edited by MARGARET O. DAYHOFF. The National Biomedical Research Foundation, Silver Spring, Md. 1972. xxx + 544 pp. \$22.50.

Eleven essays, each written by the editor with various collaborators, on relationships among protein structures, with particular concern with biochemical evolution, constitute the first part of this work. A frontispiece depicts a figurine of an ape, seated in a Rodin-like pose on a stack of books by Darwin, contemplating a human skull, as though he were thinking "If man evolved from the ape, how is it that I am not a man?" The remaining four-fifths of the book is the Data Section, wherein the amino acid sequences in a quite incredible number of proteins, published before January 1971, ranging from trypsinogen of the spiny dogfish to neurotoxin of the Egyptian cobra, are presented in tabular form. A section of fold-out pages shows the three-dimensional structure of lysozyme, and protein alignments and nucleic acid alignments for a substantial group of proteins. Taxonomic, author, and subject indexes complete this thorough work.

**Biological Oxidation of Nitrogen in Organic Molecules.** Edited by J. W. BRIDGES (University of Surrey), J. W. GORROD (Chelsea College), and D. V. PARKE (University of Surrey). Halsted/Wiley, New York, N. Y. 1972. xxi + 269 pp. \$21.00.

An International symposium on the title subject was held in London in December 1971; the proceedings are collected in this book. Forty papers are included; the majority are concerned in one way or another with amine oxides and not all are concerned with the process of oxidation. It is pleasant to find subject and author indexes in a volume of this kind.

**Chlorine: An Annotated Bibliography.** By RALPH G. SMITH (University of Michigan). The Chlorine Institute, Inc., 342 Madison Ave., New York, N. Y. 1972. \$6.00.

This paperbound book of about 200 pages (which are not numbered) consists of one-paragraph abstracts of 488 papers arranged chronologically from 1824 to 1971. The title is highly misleading in its generality; the references listed are confined to those concerned with exposure to chlorine from the standpoint of medicine, toxicology, industrial hygiene, and effect on the environment, and all others are ignored. The Introduction states that most of the

abstracts are from the original author's summary, or from *Chemical Abstracts* (the C.A. citations are not given, however!). Where neither of these was available, the editor has not filled the gap, but has simply stated "No summary." There are author and subject indexes.

**Organic Syntheses. Volume 52.** Edited by H. O. HOUSE (Georgia Institute of Technology). John Wiley & Sons, Inc., New York, N. Y. 1972. xii + 152 pp. \$9.50.

The regular reappearance of this helpful friend is always a pleasant occasion. There are twenty-seven preparations described, of which the largest number involve the use or preparation of organometallic reagents (aluminum, copper, lithium, nickel). A gap of long standing is filled by two electrochemical procedures, one of which is a preparation of Fremy's salt (sodium nitrosodisulfonate), an oxidizing agent that has been long known, but little used, owing to difficult accessibility. Among the many other valuable and significant preparative procedures that could be mentioned are those of two macrocyclic (crown) ethers, substances that have recently come into prominence for their ability to form complexes with alkali metal cations.

A continuing concern with safety manifests itself throughout this volume in the form of suitable warnings, not only about possible explosion dangers, but also toxicity.

An unnumbered appendix of 25 pages lists additional procedures currently under consideration, the full texts of which can be ordered by those who want them before they eventually appear in a future volume.

**Photographic Analysis. A Textbook of Photographic Sciences.** By J. KATZ and S. J. FOGEL. Morgan and Morgan, Inc., Hastings-on-Hudson, N. Y. 1971. \$25.00.

The presentation of the subject of this book, the chemistry (organic, inorganic, and physical) of the photographic process, is unfortunately marred by many scientific errors and substandard writing. The selection of topics for the individual chapters is far from systematic, and the book as a whole lacks any clear plan or cohesion in its intent. These shortcomings, which could have been substantially reduced by good editorial service, unfortunately outweigh its good points.

**Physical Methods in Heterocyclic Chemistry. Volume 5. Handbook of Molecular Dimensions.** Edited by A. R. KATRITZKY (University of East Anglia) and compiled by P. J. WHEATLEY (Cambridge University). Academic Press, New York, N. Y. 1972. xiv + 598 pp. \$39.00.

This volume is devoted to a single topic, unlike previous volumes in the series. It consists entirely of a tabulation of "all known x-ray structure determinations of molecules and ions containing heterocyclic rings to 1970," arranged in formula-index order of the rings. For each entry, the structural formula is shown and is keyed to a list of its angles and distances. The coverage is stated to be encyclopedic rather than critical. The author's stated pur-

\* Unsigned book reviews are by the Book Review Editor.