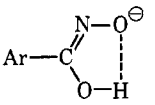
Additions and Corrections

Solvent Effects on Displacement of Fluoride Ion from Isopropyl Methylphosphonofluoridate [*J. Amer. Chem. Soc.*, **93**, 4093 (1971)]. By G. T. DAVIS, M. M. DEMEK, J. R. SOWA, and J. EPSTEIN, Physical Research Laboratory, Defensive Research Department, Edgewood Arsenal, Edgewood Arsenal, Maryland 21010.

In footnote 30, the formula should be



In footnote 34, the equation should be

$$\log k^s = \alpha pK_n^s + \left(\log \frac{\gamma_n^s \gamma_E^s \gamma_{HA}^s}{\gamma_s^s} - \alpha \log \frac{\gamma_{H^+}^s \gamma_{A^-}^s}{\gamma_{HA}^s}\right) + C$$

In Table XIII, the H found value for benzohydroxamate should be 11.1 instead of 12.4.

In Table XVII, the title of the table should read: Reaction of Methanolic Tetraethylammonium Fluoride with *O*-Phenyl *O*-Isopropyl Methylphosphonate.

Direct Evidence for the Reactive Species, and Their Reaction Orders, in the Addition Reaction of Methylmagnesium Bromide Grignard to 2-Methylbenzophenone [*J. Amer. Chem. Soc.*, **93**, 4601 (1971)]. By E. C. ASHBY, J. LAEMMLE, and H. M. NEUMANN, School of Chemistry, Georgia Institute of Technology, Atlanta, Georgia 30332.

In the captions for Figure 1 and Table II, 0.124 *M* should read 0.0124 *M*, and in ref 3, $k_u = k_1K_1$ should read $k_u = k_1/K_1$.

Mechanisms of β-Elimination Reactions in Which the Proton Is Activated by an Electron-Withdrawing Group [*J. Amer. Chem. Soc.*, **93**, 4728 (1971)]. By F. G. BORDWELL, JOSEPH WEINSTOCK, and THOMAS F. SULLIVAN, Chemistry Department of Northwestern University, Evanston, Illinois 60201.

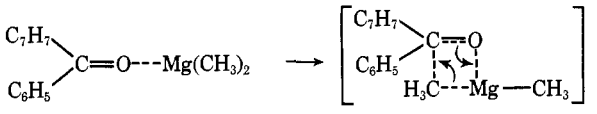
The formulas for **1** and **2** should each read $ArSO_2CH(Me)CH(OBs)Me$. Under formula **11** replace "syn" with "anti." In formula **12** the H and Cl should be interchanged on the second carbon atom.

Organometallic Reaction Mechanisms. V. The Mechanism of Dialkylmagnesium Addition to Ketones [*J. Amer. Chem. Soc.*, **93**, 5120 (1971)]. By J. LAEMMLE, E. C. ASHBY, and H. M. NEUMANN, School of Chemistry, Georgia Institute of Technology, Atlanta, Georgia 30332.

Equation 2 should read

$$R_2Mg + R'COR' \longrightarrow \overset{R}{RMgOCR'_2} \xrightarrow{R'COR'} \overset{R}{Mg(OCR'_2)_2}$$

On page 5123, the third line from the top, Tables III and IV should read Tables II and III. On page 5127, eq 23 should read



Nucleic Acid Related Compounds. III. A Facile Synthesis of 5-Fluorouracil Bases and Nucleosides by Direct Fluorination [*J. Amer. Chem. Soc.*, **93**, 5277 (1971)]. By MORRIS J. ROBINS and S. R. NAIK, Department of Chemistry, The University of Alberta, Edmonton, Alberta, Canada.

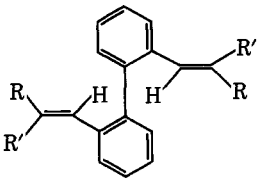
On page 5277, third line from the bottom, replace 1-methyluracil by 5-bromo-1-methyluracil.

Mechanism for the Quenching of Alkanone Singlets by Conjugated Dienes [*J. Amer. Chem. Soc.*, **93**, 5595 (1971)]. By RICHARD R. HAUTALA and NICHOLAS J. TURRO, Department of Chemistry, Columbia University, New York, New York 10027.

On page 5597, in the eighth and fourteenth lines from the bottom, cyclohexadiene should read cyclooctadiene.

Dielectrocyclic Reactions [*J. Amer. Chem. Soc.*, **93**, 5731 (1971)]. By E. C. W. SCHEUNEMAN and W. G. LAIDLAW, Chemistry Department, University of Calgary, Calgary, Alberta, Canada.

In Scheme II on the left and Chart IV omit the 2–15 bond. In Table I the heading for the last column should be $\beta' = 0.6\beta$. In addition Scheme III should have the system



not the system depicted.

Symmetry, Topology, and Aromaticity [*J. Amer. Chem. Soc.*, **93**, 6193 (1971)]. By M. J. GOLDSTEIN and ROALD HOFFMANN, Department of Chemistry, Cornell University, Ithaca, New York 14850.

On page 6197, second column, the illustration nearest the bottom of the column is part of footnote 25b and should be placed following that footnote.

On page 6202, second column, the superscript at the end of the last line of text should be 57.

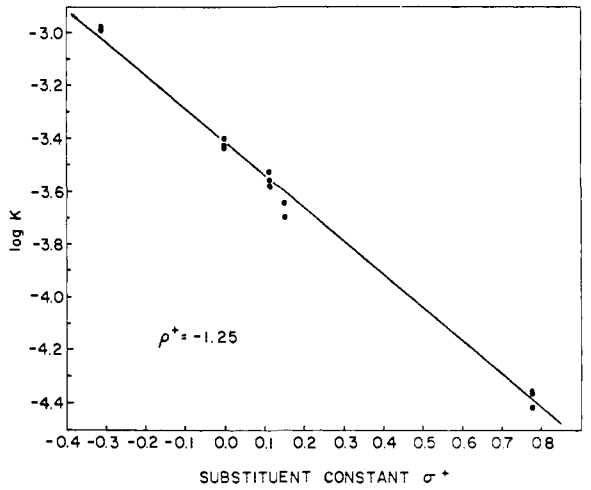
Reactions of Dianions of Carboxylic Acids with Esters and α,β-Unsaturated Esters, Nitriles, and Aldehydes [*J. Amer. Chem. Soc.*, **93**, 6321 (1971)]. By YU-NENG KUO, JOSEPH A. YAHNER, and C. AINSWORTH, Department of Chemistry, Colorado State University, Fort Collins, Colorado 80521.

In Table I, the first line of entries should have Me under R, R′, and R″. In this experiment dianion was added to the ester.

Small Charged Rings. XV. Kinetics and Stereochemistry of the Ring Expansion Reaction of 2-Arylaziridinium Salts with Benzaldehyde [*J. Amer. Chem. Soc.*, **93**, 6567 (1971)]. By THOMAS R. KEENAN and NELSON

J. LEONARD, Department of Chemistry, School of Chemical Sciences, University of Illinois, Urbana, Illinois 61801.

Substitute the revised Figure 3 below for that which appeared in the original article on page 6570.



Self-Reactions of Diethylamino and Diisopropylamino Radicals [*J. Amer. Chem. Soc.*, **93**, 6686 (1971)]. By J. R. ROBERTS and K. U. INGOLD, Division of Chemistry, National Research Council of Canada, Ottawa, Canada.

On page 6687, column one, the twelfth line from the bottom should read

$$i\text{-Pr}_2\text{NN-}i\text{-Pr}_2 \underset{k_{-1}}{\overset{k_1}{\rightleftharpoons}} 2i\text{-Pr}_2\text{N}\cdot \xrightarrow{k_2} i\text{-Pr}_2\text{NH} + i\text{-Pr}_2\text{N}{=}\text{C(CH}_3)_2$$

The next five equations beginning with the sixth line from the bottom should read

$$\text{d[N}\cdot\text{]/d}t = -k_1[\text{N}\cdot]^2 + 2k_{-1}[\text{N}_2] - k_2[\text{N}\cdot]^2$$

$$2\text{d[N}_2\text{]/d}t = k_1[\text{N}\cdot]^2 - 2k_{-1}[\text{N}_2] = -\text{d[N}\cdot\text{]/d}t - k_2[\text{N}\cdot]^2$$

$$2\text{d[N}_2\text{]/d}t = -k_2[\text{N}\cdot]^2$$

$$2k_{-1}[\text{N}_2] \approx k_1[\text{N}\cdot]^2$$

$$2\text{d[N}_2\text{]/d}t = (2k_1/k_{-1})[\text{N}\cdot]\text{d[N}\cdot\text{]/d}t$$

*Book Reviews**

Annotated Bibliography of Marihuana, 1964–1970. By C. W. WALLER and J. J. DENNY (University of Mississippi). The Research Institute of Pharmaceutical Sciences, University of Mississippi, University, Miss. 1971. vii + 301 pp. $7.00.

This spiral-bound volume lists 1112 papers, each with generally one to three sentences of description, dealing with the chemistry of the plant constituents, synthesis of cannabinoids, analysis, and biological aspects of *Cannabis sativa*. There is also an author index and a thorough subject index.

La Chimie en Solvants Non-Aqueux. By B. TRÉMILLON (Université de Paris). Presses Universitaires de France, Paris. 1971. 239 pp. F 18.

This introductory paperback textbook is concerned primarily with the principles of chemical behavior in nonaqueous solvents: solvation, acid–base properties, electron transfer, and thermodynamics. There is an extensive bibliography of books and papers, but no index.

La Cinétique Chimique Homogène. By R. SCHAAL (Université de Paris). Presses Universitaires de France, Paris. 1971. 166 pp. F 16.

This small-sized paperback volume is a concisely written introduction to the subject. There is a short bibliography, but no index.

Organic Syntheses. Volume 51. Edited by R. E. BENSON (E. I. DuPont de Nemours and Co.). John Wiley & Sons, Inc., New York, N. Y. 1971. xiv + 161 pp. $8.50.

The latest volume in this ever-welcome series will be of special interest to those wishing to prepare aldehydes, for examples of eight different methods are included. There is, of course, the usual wide range of other useful procedures and compounds, of which trimethyloxonium fluoroborate, so valuable for its exceptionally powerful alkylating ability, may be singled out. The changes from the traditional policy introduced with Volume 49 are continued, and one now finds spectrographic data for most products, and short critical discussions of scope and value of the methods. A 27-page supplement lists the procedures that have been submitted but not yet checked, with an offer to provide copies of them for $2 each.

* Unsigned book reviews are by the Book Review Editor.

Creation and Detection of the Excited State. Volume 1. Edited by A. A. LAMOLA (Bell Laboratories). Marcel Dekker, Inc., New York, N. Y. 1971. Part A: xiii + 373 pp. $26.50. Part B: xiii + 374–658 pp. $21.50.

The contents of this book would be better reflected by its title if "Electronic" were inserted before "Excited." The book will be of great interest to photochemists but of little interest to workers concerned primarily with vibrationally excited levels of the ground electronic state. The preface makes clear the goal of the series which this volume begins: To bring together, at a level useful to experimentalists, especially students, critical examinations of all the methods which can be used to study electronically excited molecules. Volume 1 is a successful step toward this goal.

The book is a multiple author effort. Part A contains seven chapters covering absorption spectrophotometry, photochemical kinetics and quantum yields, energy transfer, luminescence, triplet esr, and polarized light. Part B comprises six chapters examining electron impact, ionizing radiation, pulse radiolysis, vacuum uv, and vacuum and preparative techniques. The chapters vary somewhat in coverage and in background presumed of the reader. A few chapters could be studied fruitfully by undergraduates and one or two would elude most graduate students. The bulk of the material is at a level easily handled by the average graduate student or by workers not specializing in the field at hand. In most cases, the authors give valuable descriptions of experimental techniques. Tricks and potential pitfalls are pointed out and references to specific equipment are given. The experimental sections are usually preceded by brief developments of the appropriate theory and followed by a few examples of applications of the technique at hand. A few of the chapters stress thecretical development of a technique more heavily than its experimental realization. References seem well chosen and up to date.

George A. Fisk, *Cornell University*

Progress in Physical Organic Chemistry. Volume 8. Edited by ANDREW STREITWIESER, JR., and ROBERT W. TAFT. Wiley-Interscience, New York, N. Y. 1971. vii + 359 pp. $22.50.

There are four chapters in this 8th volume of the series "Progress in Physical Organic Chemistry," each one reviewing experimental material which in one form or another is referred to the Hammett–Taft and other structure–reactivity correlations. The first chapter, by David Holtz, consisting of 74 pages and 231 references, is titled "A Critical Evaluation of the Concept of Fluorine Hyperconjuga-