Additions and Corrections

Photochemistry of Bicyclo[3.2.0]hept-3-en-2-ones [*J. Am. Chem. Soc.,* **95,** 4346 (1973)]. By ROBERT L. CARGILL,* A. BRADFORD SEARS, JEFFREY BOEHM, and M. ROBERT WILLCOTT, Departments of Chemistry, University of South Carolina, Columbia, South Carolina 29208, and University of Houston, Houston, Texas 77004.

Page 4353, line 32: One of the vinyl proton signals for 2-methyl-1,3-cyclohexadiene is erroneously reported at δ 6.68. The correct chemical shift is δ 5.68.

Reaction of *N,N*-Dichlorourethane and of Diethyl Azodicarboxylate with Alkoxide [*J. Am. Chem. Soc.,* **96,** 7284 (1974)]. By RONALD E. WHITE and PETER KOVACIC,* Department of Chemistry, University of Wisconsin—Milwaukee, Milwaukee, Wisconsin 53201.

In eq 2, t-Bu should be t-Bu$^-$

Behavior of *N,N*-Dichloroamides and *N,N*-Dichlorocarbamates toward Nucleophiles [*J. Am. Chem. Soc.,* **97,** 1180 (1975)]. By RONALD E. WHITE and PETER KOVACIC,* Department of Chemistry, University of Wisconsin—Milwaukee, Milwaukee, Wisconsin 53201.

Equation 2 should be:

$$\mathrm{RCONHCl} \xrightarrow{\mathrm{NaOMe}} \mathrm{RCONCl^-\,Na^+} \xrightarrow{\mathrm{MeOCl}} \mathrm{RCONCl_2} + \mathrm{NaOMe} \quad (2)$$

In Scheme III, structure **7** should be RCONCl.

"K-Region" Oxides and Related Oxidized Metabolites of Carcinogenic Aromatic Hydrocarbons [*J. Am. Chem. Soc.,* **97,** 3468 (1975)]. By RONALD G. HARVEY,* SWEE HOCK GOH, and CECILIA CORTEZ, the Ben May Laboratory, The University of Chicago, Chicago, Illinois 60637.

In the Experimental Section compounds numbered **10, 11,** and **12** should be **11, 12,** and **13,** respectively.

Nuclear Magnetic Resonance Studies of Planar Low-Spin Complexes of Cobalt(II) with Schiff Bases. *N,N'*-Ethylenebis(salicylideneiminato)cobalt(II) in Noncoordinating Solvents [*J. Am. Chem. Soc.,* **97,** 4228 (1975)]. By KOUTO MIGITA,* MASAMOTO IWAIZUMI, and TARO ISOBE, Chemical Research Institute of Non-Aqueous Solutions, Tohoku University, Sendai 980, Japan.

The longitudinal axis in Figure 3 should be corrected as follows: −5.0 to −10.0, −10.0 to −20.0, −20.0 to −30.0, and −30.0 to −40.0.

The sentence beginning on the 15th line in the left-hand column on page 4231 should read: "From the observed spin density distribution, the total unpaired electron densities delocalized on the ligand are estimated to be about 4–9% of that in the cobalt(II) ion."

The authors would like to mention further that the spin delocalization onto the ligand amounts to 8–18% if it is evaluated based on spin densities calculated by the INDO method.

Crystal and Molecular Structure of Pentaphenoxyphosphorane, $(C_6H_5O)_5P$. The Configuration of Acyclic, Monocyclic, and Spirobicyclic Pentaoxyphosphoranes [*J. Am. Chem. Soc.,* **98,** 581 (1976)]. By RAGHUPATHY SARMA,* FAUSTO RAMIREZ,* BRIAN MCKEEVER, JAMES F. MARECEK, and SHUYAN LEE, Biochemistry and Chemistry Departments of the State University of New York at Stony Brook, Stony Brook, New York 11794.

Sections (i) and (ii) of Table V in the original paper should be replaced by the following Corrected Table V. The values in Corrected Table V are calculated from the atomic coordinates listed in Table I of the original paper, which correspond to the stated R factor of 7.5%. The erroneous values in Table V of the original paper were calculated from a previous cycle corresponding to an R factor of 8.0%; the differences are mostly within the given standard deviations, with the possible exceptions of the distances P-O(3) and P-O(4), which become shorter by 0.024 and 0.028 Å, respectively, and the angle O(3)-P-O(4) which is reduced by 1.28 °C. We are grateful to Professor R. R. Holmes of the University of Massachusetts for pointing out this error.

Corrected Table V. Bond Distances (Å) and Angles (Deg), and Their Standard Deviations (in Parentheses), for $(C_6H_5O)_5P$

Bond angles (deg)		Bond distances (Å)	
	(i) In PO_5 Group		
O(1)-P-O(5)	176.50 (1.2)	P-O(1)	1.661 (5)
O(2)-P-O(3)	126.15 (0.7)	P-O(5)	1.664 (5)
O(2)-P-O(4)	118.91 (0.6)	P-O(2)	1.601 (5)
O(3)-P-O(4)	114.91 (0.6)	P-O(3)	1.572 (5)
O(1)-P-O(3)	92.16 (0.4)	P-O(4)	1.572 (5)
O(1)-P-O(4)	91.75 (0.4)		
O(4)-P-O(5)	91.36 (0.4)		
O(2)-P-O(5)	89.02 (0.4)		
O(1)-P-O(2)	88.07 (0.4)		
O(3)-P-O(5)	88.00 (0.4)		
	(ii) In Phenoxy Ligands		
P-O(1)-C(11)	131.02 (0.9)	O(1)-C(11)	1.369 (7)
P-O(5)-C(51)	126.58 (0.8)	O(5)-C(51)	1.386 (7)
P-O(2)-C(21)	129.74 (0.9)	O(2)-C(21)	1.402 (8)
P-O(3)-C(31)	126.70 (0.9)	O(3)-C(31)	1.402 (8)
P-O(4)-C(41)	124.95 (0.8)	O(4)-C(41)	1.394 (8)
O(1)-C(11)-C(12)	118.13 (1.0)		
O(1)-C(11)-C(16)	121.76 (1.0)		
O(5)-C(51)-C(52)	117.14 (1.0)		
O(5)-C(51)-C(56)	122.08 (1.2)		
O(2)-C(21)-C(22)	118.89 (1.1)		
O(2)-C(21)-C(26)	119.43 (1.1)		
O(3)-C(31)-C(32)	117.85 (1.2)		
O(3)-C(31)-C(36)	119.49 (1.2)		
O(4)-C(41)-C(42)	120.79 (1.2)		
O(4)-C(41)-C(46)	116.74 (1.2)		

Preparation and Properties of Uranocene, Di-π-cyclooctatetraeneuranium(IV) [*J. Am. Chem. Soc.,* **95,** 8644 (1973)]. By A. STREITWIESER, JR.,* U. MULLER-WESTERHOFF, G. SONNICHSEN, F. MARES, D. G. MORRELL, KEITH O. HODGSON, and C. A. HARMON, Department of Chemistry, University of California, Berkeley, California 94720.

In Table IV, the D_{8h} Character Table, the column headings

Table IV. D_{8h} Character Table

	E	$2C_8$	$2C_4$	$2C_8^3$	C_2	$4C_2'$	$4C_2''$	i	$2S_8$	$2S_4$	$2S_8^3$	σ_b	$4\sigma_d$	$4\sigma_v$	
A_{1g}	1	1	1	1	1	1	1	1	1	1	1	1	1	1	s,d_{z^2}
A_{2g}	1	1	1	1	1	−1	−1	1	1	1	1	1	−1	−1	
B_{1g}	1	−1	1	−1	1	1	−1	1	−1	1	−1	1	1	−1	
B_{2g}	1	−1	1	−1	1	−1	1	1	−1	1	−1	1	−1	1	
E_{1g}	2	$\sqrt{2}$	0	$-\sqrt{2}$	−2	0	0	2	$-\sqrt{2}$	0	$\sqrt{2}$	−2	0	0	d_{xz}; d_{yz}
E_{2g}	2	0	−2	0	2	0	0	2	0	−2	0	2	0	0	d_{xy}; $d_{x^2-y^2}$
E_{3g}	2	$-\sqrt{2}$	0	$\sqrt{2}$	−2	0	0	2	$\sqrt{2}$	0	$-\sqrt{2}$	−2	0	0	
A_{1u}	11	1	1	1	1	1	1	−1	−1	−1	−1	−1	−1	−1	
A_{2u}	1	1	1	1	1	−1	−1	−1	−1	−1	−1	−1	1	1	p_z, f_{z^3}
B_{1u}	1	−1	1	−1	1	1	−1	−1	1	−1	1	−1	−1	1	
B_{2u}	1	−1	1	−1	1	−1	1	−1	1	−1	1	−1	1	−1	
E_{1u}	2	$\sqrt{2}$	0	$-\sqrt{2}$	−2	0	0	−2	$\sqrt{2}$	0	$-\sqrt{2}$	2	0	0	p_z, f_{xz^2}; p_y, f_{yz^2}
E_{2u}	2	0	−2	0	2	0	0	−2	0	2	0	−2	0	0	f_{xyz}, $f_{z(x^2-y^2)}$
E_{3u}	2	$-\sqrt{2}$	0	$\sqrt{2}$	−2	0	0	−2	$-\sqrt{2}$	0	$\sqrt{2}$	2	0	0	$f_{x(x^2-3y^2}$; $f_{y(3x^2-y^2)}$

for $2S_8$ and $2S_8^3$ should be interchanged. A similar error occurs in two other published D_{8h} tables.[1,2] One of these other published tables[2] contains other typographical errors as well. A third published table[3] has several characters missing. The revised Table IV shown here should replace previously published versions. We are indebted to Dr. J. Duerksen for pointing out this error.

(1) F. A. Cotton, "Chemical Applications of Group Theory", 2nd ed, Wiley-Interscience, New York, N.Y., 1971, p 360.
(2) A. Streitwieser, Jr., in "Topics in Nonbenzenoid Aromatic Chemistry", Vol. 1, T. Nozoe et al., Ed., Hirokawa Publishing Co., Inc., Tokyo, 1973, p 225.
(3) J. A. Salthouse and M. J. Ware, "Point Group Character Tables", Cambridge University Press, London, 1972, p 47.

Reactivity–Selectivity Relationships. II. A Simple Model to Explain Nucleophile–Electrophile Combination Reactions and Its Implications for the Reactivity–Selectivity Principle [*J. Am. Chem. Soc.,* **98,** 776 (1976)]. By ADDY PROSS, Department of Chemistry, Ben Gurion University of the Negev, Beer Sheva, Israel.

Page 778, column 1, line 28: A line of print was inadvertently omitted from the text. The sentence should read: "For cation–anion combination reactions this range extended over six orders of magnitude."

Kinetic Applications of Electron Paramagnetic Resonance Spectroscopy. XXIV. Neophyl Rearrangements [*J. Am. Chem. Soc.,* **98,** 1224 (1976)]. By B. MAILLARD and K. U. INGOLD,* Division of Chemistry, National Research Council of Canada, Ottawa, Canada.

On page 1225 eq 2–5 should read:

1U: $\log (k_i/2k_t^R/M) = -(1.4 \pm 0.8) - (6.8 \pm 1.0)/\theta$ (2)
4U: $\log (k_i/2k_t^R/M) = -(1.3 \pm 0.5) - (6.6 \pm 0.5)/\theta$ (3)
2U: $\log (k_i/2k_t^R/M) = (1.1 \pm 1.3) - (11.7 \pm 1.8)/\theta$ (4)
3U: $\log (k_i/2k_t^R/M) = (2.9 \pm 2.3) - (14.2 \pm 2.9)/\theta$ (5)

pH Dependence of the Nitrotyrosine-248 and Arsanilazotyrosine-248 Carboxypeptidase A Catalyzed Hydrolysis of *O*-(*trans-p*-Chlorocinnamoyl)-L-β-phenyllactate [*J. Am. Chem. Soc.,* **98,** 1940 (1976)]. By JUNGHUN SUH and EMIL THOMAS KAISER,* Department of Chemistry, University of Chicago, Chicago, Illinois 60637.

The correct format for eq 2 is shown below:

$$v = \frac{d[S]}{dt} = \frac{k_{cat}[E_0][S]}{K_{m_{app}} + [S] + \frac{K_{m_{app}}}{K_p}([S_0] - [S])} \quad (2)$$

Book Reviews*

Advances in Chemical Physics. Volume XXXIII. Edited by I. PRIGOGINE and S. A. RICE. John Wiley & Sons, Inc., New York, N.Y. 1975. ix + 462 pp. $32.00.

This volume, dedicated to the late Lothar Meyer, has chapters on eight different topics. Mobilities of charge carriers in superfluid liquid helium, including theoretical models for the carriers and experimental results, are discussed by K. W. Schwarz. The chapter by T. Kihara and A. Koide on the intermolecular forces in crystals of D_2, N_2, O_2, F_2, and CO_2 deals with interactions in which orientations as well as interparticle distances are important. R. Cerf discusses experimental results and the theory of cooperative conformational kinetics for natural and synthetic polymers. R. G. Woolley uses a nonrelativistic formalism to derive the Hamiltonian for a closed system consisting of atoms and their electric field. A. Ben-Reuven applies linear response theory to obtain general expressions for the shape of spectral lines of neutral gaseous molecules as affected by a weakly coupled external radiation field. D. G. Truhlar, C. A. Mead, and M. A. Brandt discuss time-reversal invariance, in particular its application to scattering theory.

The last two chapters will have the most interest for persons concerned with the chemical reactivity of molecules of moderate size.

In the chapter on transition state stabilization energy, M. V. Basilevsky discusses quantum mechanical models for the transition state with particular attention to the question of which approximations are acceptable at the internuclear distances characteristic of transition states. The Evans–Polanyi (Hammond) rule for the variation of the position of the transition state with reactivity is derived, as are the Woodward–Hoffmann rules. The application of the transition state stabilization theory to Hammett and other linear free energy relationships is also discussed.

The chapter on the thermodynamics of systems evolving toward equilibrium, by D. G. B. Edelen, is of interest not only because of the increasing use of relaxation rate data, but also in connection with oscillating chemical reactions and with biological clocks.

John E. Leffler, *Florida State University*