-11.61 ppm (2, NH); mol wt 244 (toluene, osmometry), calcd 248; mass spectrum (70 eV) m/e 248 (P). Nickel-(II) and copper(II) complexes (8) were prepared from 7



and the metal acetate in ethanol, while the remaining complexes were obtained by nonaqueous chelation reactions in *tert*-butyl alcohol<sup>10</sup> (Fe(II), Co(II)) or THF<sup>11,12</sup> (Zn(II)). As a class the complexes M-(MeHMe(en)<sub>2</sub>) are easily crystallized and moderately soluble in weakly polar solvents. As solids, all are stable to dry oxygen except the Fe(II) species; this complex and Co(MeHMe(en)<sub>2</sub>) react with oxygen in solution. The spectral and magnetic properties are consistent with a planar stereochemistry.<sup>13</sup>

(10) R. H. Holm, F. Röhrscheid, and G. W. Everett, Jr., Inorg. Syn., 11, 72 (1968).

(11) W. R. McClellan and R. E. Benson, J. Amer. Chem. Soc., 88, 5165 (1966).

(12) D. H. Gerlach and R. H. Holm, ibid., 91, 3457 (1969).

The reaction sequence in the conversion  $6 \rightarrow 7$  is under further investigation. Interruption of the reaction after addition of the first equivalent of ethylenediamine has allowed isolation of the intermediate salt 9, the exact tautomeric structure of which is uncertain. This material was purified by recrystallization from dry methanol and isolated as a very hygroscopic white solid (34%, mp 175-180°). Neutralization of 9 followed by reaction with 1 equiv of ethylenediamine in dry methanol gives the macrocycle 7 in 50% yield. The use of 9 as an intermediate in the preparation of unsymmetrical macrocycles is under study. The synthetic scheme described here represents a particularly clear example of the utility of  $\overline{O}$ -alkyl- $\beta$ -ketoamine cations as intermediates in the synthesis of open<sup>12,14</sup> or cyclic ligand systems by nucleophilic reactions at the >COR carbon, and should be suggestive of further applications.

Details of the electronic and redox properties and the oxidative reactivities of  $M(MeHMe(en)_2)$  and related complexes, as well as additional experiments directed toward a useful template synthesis of 7 and 8, will be reported subsequently.

Acknowledgment. This research was supported by grants from the National Institutes of Health (No. GM-15471) and the National Science Foundation (No. GP-7576X).

(13) Magnetic moments of crystalline solids (8) at  $\sim 25^{\circ}$ : M = Ni(II), Zn(II) diamagnetic; Cu(II), 1.78 BM; Co(II), 2.08 BM; Fe(II), 3.95 BM.

(14) S. G. McGeachin, Can. J. Chem., 46, 1903 (1968).

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## Additions and Corrections

Kinetics and Mechanism of the Osmium Tetroxide Catalyzed Oxidation of Acetone and Ethyl Methyl Ketone by Alkaline Hexacyanoferrate(III) Ion [J. Amer. Chem. Soc., 91, 2643 (1969)]. By V. N. SINGH, H. S. SINGH, and B. B. L. SAXENA, Department of Chemistry, University of Allahabad, Allahabad, India.

The right-hand side of eq 1-4, 6, and 7 should be multiplied by 2 and that of eq 5 by 1/2. The resulting rate expressions thus would be valid for the first stage of oxidation. The  $k_1$  values calculated should be read as  $2k_1$ . The species of osmium(VII) and osmium(VI) should be taken as  $OsO_4(OH)_2^{2-}$  and  $OsO_2(OH)_4^{2-}$ .

On the Mechanism of Interaction between Tertiary Amines and Trichlorosilane [J. Amer. Chem. Soc., 92, 699 (1970)]. By STANLEY C. BERNSTEIN, Department of Chemistry, Wright State University, Dayton, Ohio 45431 The rate equation on page 699 should read

 $4AIk_{\rm FD}t = 2(I-1)(x-1) - (I+1)\ln(2x-1)$ 

The calculations in the communication are based on this correct equation.

Conformational Analysis. XXII. Conformational Equilibria in 2-Substituted 1,3-Dioxanes [J. Amer. Chem. Soc., 92, 3050 (1970)]. By FRANZ W. NADER and ERNEST L. ELIEL, Department of Chemistry, University of Notre Dame, Notre Dame, Indiana 46556.

In Table VI, column 1, compound II should read III and III should read IV. The first two footnotes to the table should read: <sup>a</sup> Axial isomer/equatorial isomer. <sup>b</sup> Equatorial isomer/axial isomer.

A Model for the Biogenesis of the Spirobenzylisoquinoline Alkaloids [J. Amer. Chem. Soc., 92, 4943 (1970)]. By MAURICE SHAMMA and C. D. JONES, Department of Chemistry, The Pennsylvania State University, University Park, Pennsylvania 16802.

Structures 8 and 9 were inadvertently omitted from the paper. They should be



Additionally, a methyl group is missing from structure 15 so that it should be



Stereochemistry of Nucleic Acids and Their Constituents. XI. The Molecular Structure and Conformation of  $\alpha$ -Pseudouridine Monohydrate, an Unusual Nucleoside with a "Glycosidic" Carbon-Carbon Bond. [J. Amer. Chem. Soc., 92, 4950 (1970)]. Stereochemistry of Nucleic Acids and Their Constituents. XII. The Crystal and Molecular Structure of  $\alpha$ -D-2'-Amino-2'deoxyadenosine Monohydrate [J. Amer. Chem. Soc., 92, 4956 (1970)]. By D. C. ROHRER and M. SUNDARALINGAM, Department of Chemistry, Case Western Reserve University, Cleveland, Ohio 44156.

Figures 3 in parts XI and XII should be interchanged. The captions to the figures remain as they are.

Conformational Aspects of Polypeptide Structure. XXXII. Helical Poly[(S)-thiazolidine-4-carboxylic acid]. Experimental Results [J. Amer. Chem. Soc., 92, 5220 (1970)]. By MURRAY GOODMAN, KAI-CHIANG SU, and GREGORY C.-C. NIU, Polymer Research Institute, Department of Chemistry, Polytechnic Institute of Brooklyn, Brooklyn, New York 11201.

On page 5221, in the fourth line up from the bottom of the right-hand column,  $n-\pi^*$  should read  $n-\sigma^*$ .

Unsaturated Lactone Photochemistry. Effect of Wavelength and Sensitizer Structure on Selective Population of Specific Excited States [J. Amer. Chem. Soc., 92, 5892 (1970)]. By EDWIN F. ULLMAN and NIKLAUS BAUMANN, Synvar Research Institute, Palo Alto, California 94304.

In the last line of Table IV, the quantum yield with pyrene as sensitizer given in column 5 should read  $<1.2 \times 10^{-3}$ .

Carbonium Ions in Radiation Chemistry. II. Isomerization Process in Protonated Cyclopropane and Cyclobutane Ions [J. Amer. Chem. Soc., 92, 6430 (1970)]. By S. G. LIAS, R. E. REBBERT, and P. AUSLOOS, Radiation Chemistry Section, Physical Chemistry Division, National Bureau of Standards, Washington, D. C. 20234.

The correct title for this paper should be: Carbonium Ions in Radiation Chemistry. II. Isomerization Processes in  $C_3H_7^+$  and  $C_4H_9^+$  Ions.

Synthesis and Characterization of Bicyclo[3.3.3]undecane and 1-Azabicyclo[3.3.3]undecane [J. Amer. Chem. Soc., 92, 6685 (1970)]. By NELSON J. LEONARD and JOHN C. COLL, Department of Chemistry, School of Chemical Sciences, University of Illinois, Urbana, Illinois 61801.

The melting point  $155-157^{\circ}$  reported for bicyclo-[3.3.3]undecane was obtained in an unsealed capillary tube. In a sealed immersed capillary, the melting point is *ca.* 192°, in agreement with the recently published value: M. Doyle, W. Parker, P. A. Gunn, J. Martin, and D. D. Macnicol, *Tetrahedron Lett.*, 3619 (1970).

Chelation of Uranyl Ions by Adenine Nucleotides. IV. Nuclear Magnetic Resonance Investigations, Hydrogen-1 and Phosphorus-31, of the Uranyl-Adenosine 5'-Diphosphate and Uranyl-Adenosine 5'-Triphosphate Systems [J. Amer. Chem. Soc., 92, 6818 (1970)]. By KEN-NETH E. RICH, RAGHUNATH T. AGARWAL, and ISAAC FELDMAN, Department of Radiation Biology and Biophysics, University of Rochester School of Medicine and Dentistry, Rochester, New York 14620.

In Figure 1 the ATP spectrum, F, is incorrect. The correct resonance frequencies are 5.37 and 5.06 ppm for the adenine-group H<sub>8</sub> and H<sub>2</sub> signals, respectively, and 2.98, 1.63, 1.44, 1.24, and 1.09 ppm, respectively, for the ribose signals H<sub>1</sub>', H<sub>2</sub>', H<sub>3</sub>', H<sub>4</sub>', and H<sub>5</sub>'. Thus, the upfield shift of the H<sub>8</sub> signal produced by addition of uranyl ion (equimolar) to ATP at pD 6.8 is at least 0.3 ppm, since the most downfield peak in the UO<sub>2</sub><sup>VI</sup>-ATP spectrum (Figure 1E) lies at 5.05 ppm. Further, it is now seen that *no* signal in Figure 1E lies downfield of the H<sub>2</sub> signal of ATP.