

relationship having parameters consistent with the postulated processes. Although details of the protonation reactions of TPAB's are not yet well understood, the present study provides a base for further exploration of the chemistry, structure, and physical properties of these interesting systems.

Experimental Section

TPAB's were synthesized according to literature procedures.⁸ New TPAB's (*p*-methyl and *p*-fluoro) exhibited satisfactory elemental, ¹H NMR, and IR analyses. UV-vis spectra were recorded on a Hitachi 100-80 spectrometer equipped with a thermostated cell holder. pH measurements were made on a Corning 125 pH meter with a Metrohm 6.0216.0 combination electrode calibrated in aqueous solution using standard buffers (Fischer, Gram-Pac).

pH-Dependent UV-Visible Spectrometric Measurement. Solutions of TPAB's (ca. 1.0×10^{-5} M) were prepared by weight and sufficient NaClO₄ was added to attain an ionic strength of 0.50 (to minimize deviations due to ionic effects) in 90% methanol/water (100 mL of doubly distilled water to 1 L volume with distilled absolute methanol). After calibration, the pH electrode was allowed to equilibrate in 90% methanol/water for ca. 2 h prior to use. pH_{obs} values of the TPAB solutions were adjusted by using concentrated perchloric acid and/or tetraethylammonium hydroxide and UV-vis spectra were recorded at 25.0 ± 0.1 °C. pH_{obs} readings were converted to [H⁺] by using the relationships $[H^+] = (10^{-pH})/\gamma_{\pm}$ and $pH = pH_{obs} - \delta$, where δ is a correction factor for solvent effects^{10,14} and the activity coefficient, γ_{\pm} , at an ionic

strength of 0.5 was interpolated from the data of Akerlof.¹⁵ Values of acid dissociation constants, K_a 's, were obtained by using a nonlinear least-squares program to fit absorbance, A_j , vs [H⁺] data to the equation $A_j = \{A_L + (A_{HL}/K_a)[H^+]\}/(1 + [H^+]/K_a)$, where A_L and A_{HL} are the limiting absorbance values of the non- and monoprotonated forms of the TPAB, respectively.

Tosylate Adduct of Nonsubstituted TPAB (1). A solution of 54 mg (0.28 mmol) of *p*-toluenesulfonic acid hydrate in 5 mL of acetone was added to a solution of 100 mg (0.28 mmol) of nonsubstituted TPAB in 5 mL of acetone. After swirling to mix, the solution was allowed to stand at room temperature overnight in a closed vial. The resulting solid that formed was collected by filtration, washed once with minimal cold acetone, and dried under reduced pressure to give 66 mg (45 %) of 1 as air stable, dark red crystals: mp 239–41 °C. Anal. Calcd for C₃₁H₂₉N₃SO₃: C, 71.10; H, 5.58; N, 8.02. Found: C, 71.05; H, 5.60; N, 7.96. IR (KBr): 3240 (NH), 1640 and 1595 (C=N) cm⁻¹.

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(15) Akerlof, G. *J. Am. Chem. Soc.* 1932, 54, 4125.

Additions and Corrections

Vol. 50, 1985

Steven H. Bertz. Tetramethyl 3,7-Dihydroxybicyclo[3.3.1]nona-2,6-diene-2,4,6,8-tetracarboxylate: A Useful Companion to Meerwein's Ester. Topological Analysis of Bicyclo[3.3.1]nonane Synthesis.

Page 3585. The next-to-last sentence of the first paragraph in the Results section should read "The former (see Experimental Section for spectral parameters) fits (*E*)-3-methoxy-2-propenal, whereas the latter fits the symmetrically H-bonded *Z*-isomer of 2."

Page 3591. The second and third sentences of the first procedure in the Experimental Section should be "The ¹H NMR spectrum of a sample extracted into CDCl₃ had ceased to change by this time: ¹H NMR (CDCl₃) δ 3.82 (s, 3 H), 5.65 (dd, $J = 8, 13$ Hz, 1 H), 7.43 (d, $J = 13$ Hz, 1 H), 9.45 (d, $J = 8$ Hz, 1 H), which is consistent with (*E*)-3-methoxy-2-propenal.⁵⁷ Approximately 20% of another compound was also present, the ¹H NMR spectrum of which matched that of 2.^{58,59}"

See also reference 60.

Acknowledgment. I thank Prof. H. Quast (Würzburg) for bringing to my attention the need for this correction.

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(58) Bothner-By, A. A.; Harris, R. K. *J. Org. Chem.* 1965, 30, 254.

(59) George, W. O.; Mansell, V. G. *J. Chem. Soc. B* 1968, 132.

(60) Bertz, S. H.; Dabbagh, G. *J. Org. Chem.* 1990, 55, 5162.

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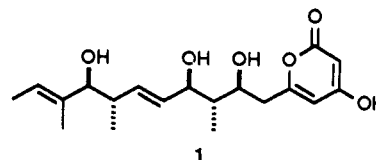
Hans P. Beutelman, Linfeng Xie, and Williams H. Saunders, Jr.*. Deuterium Isotope Effects and the Mechanism of Kinetic Enolate Formation.

Page 1704. Numbers in the last column of Table I were incorrectly transcribed and should read from top to bottom: 3.13 ± 0.29 , 3.29 ± 0.31 , and 6.59 ± 0.50 .

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Hidegori Danda, Marvin M. Hansen, and Clayton H. Heathcock*. Reversal of Stereochemistry in the Aldol Reactions of a Chiral Boron Enolate.

Page 173, column 1. The structure of ACRL toxin IIIA (1) is depicted incorrectly; the correct structure is



Apurba Datta, Hiriyakkanavar Ila,* and Hiriyakkanavar Junjappa*. Reformatsky Reaction on α -Oxo Ketene Dithioacetals: Synthesis of Substituted and Fused Ethyl 2-Hydroxy-6-(methylthio)benzoates, 6-(Methylthio)pyran-2-ones, and 6-(Methylthio)-2(1*H*)-pyridone Derivatives.

Page 5591, Scheme V. Starting materials for entries 6 and 7 should be 10a^a and 10c^b, respectively. Footnotes to Scheme V are as follows: ^aR¹ = C₆H₅. ^bR¹ = 4-MeOC₆H₄.