Among the cycloalkyl substituents, the cyclopentyl group had a more favorable action than the cyclohexyl group.

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COMMUNICATIONS

Correction to "Ionization Constants of Cephalosporin Zwitterionic Compounds"

Keyphrases □ Ionization constants—cephalosporin zwitterionic compounds, error in equations corrected □ Cephalosporin zwitterionic compounds—ionization constants, error in equations corrected □ Zwitterionic cephalosporin compounds—ionization constants, error in equations corrected

To the Editor:

In reviewing the derivation given in the paper "Ionization Constants of Cephalosporin Zwitterionic Compounds" (1), it was found that a factor was dropped in Eq. 12. This omission introduced an error into succeeding equations, and it is the purpose of this communication to correct this error.

The experimental results and calculations were made using the equations shown below rather than those in the paper and, therefore, do not need to be changed. In addition, the *Results and Discussion* section is correct in the paper.

The correct form of Eq. 12 is:

$$[\mathrm{A}] = \left(\frac{[\mathrm{B}] + [\mathrm{H}^+] - [\mathrm{OH}^-] - [\mathrm{A}]}{K_3K_4 - \{\mathrm{H}^+\}^2 \dfrac{Y_{\mathrm{NR}^-}}{Y_{+\mathrm{HNRH}}}}\right)\left\{K_3K_4 + K_3\{\mathrm{H}^+\}\frac{Y_{\mathrm{NR}^-}}{Y_{\mathrm{NRH}}}\right\} + [\mathrm{Z}]$$

The correct form of Eq. 13 is:

$$\{\mathrm{H}^+\}^2 \frac{Y_{\mathrm{NR}^-}}{Y_{+\mathrm{HNRH}}}\{[\mathrm{Z}] - [\mathrm{A}]\} = K_3\{\mathrm{H}^+\}\frac{Y_{\mathrm{NR}^-}}{Y_{\mathrm{NRH}}}\left\{[\mathrm{B}] + \frac{\{\mathrm{H}^+\}}{Y_{\mathrm{H}^+}} - \frac{K_\omega}{\{\mathrm{H}^+\}Y_{\mathrm{OH}^-}} - [\mathrm{A}]\right\} + K_3K_4\left\{[\mathrm{B}] + \frac{\{\mathrm{H}^+\}}{Y_{\mathrm{H}^+}} - \frac{K_\omega}{\{\mathrm{H}^+\}Y_{\mathrm{OH}^-}} - 2[\mathrm{A}] + [\mathrm{Z}]\right\}$$

The correct form of Eq. 14 is:

$$\delta = K_3\epsilon + K_3K_4\xi$$

A plot of δ/ξ *versus* ϵ/ξ will be linear with a slope of K_3 and δ/ξ will equal K_3K_4 at $\epsilon/\xi = 0$. Also, the value of ϵ/ξ at $\delta/\xi = 0$ will equal $-K_4$.

Equation 14 (as corrected here) may be solved using simultaneous equations by utilizing titrimetric and spectrophotometric data obtained at each of two pH values. By labeling the two sets of data as 1 and 2, K_3 and K_4 can be calculated according to:

$$K_3 = \frac{\dfrac{\delta_1}{\xi_1} - \dfrac{\delta_2}{\xi_2}}{\dfrac{\epsilon_1}{\xi_1} - \dfrac{\epsilon_2}{\xi_2}}$$

$$K_4 = \frac{\delta_1 - K_3\epsilon_1}{K_3\xi_1}$$

which are the corrected forms of Eqs. 15 and 16, respectively.

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Nitrofurantoin Solubility in Aqueous Pyridoxine Hydrochloride Solutions

Keyphrases □ Nitrofurantoin—aqueous solubility, effect of pyridoxine hydrochloride □ Solubility—nitrofurantoin in aqueous solutions, effect of pyridoxine hydrochloride □ Pyridoxine hydrochloride—effect on aqueous solubility of nitrofurantoin □ Antibacterials, urinary—nitrofurantoin, aqueous solubility, effect of pyridoxine hydrochloride □ Vitamins—pyridoxine hydrochloride, effect on aqueous solubility of nitrofurantoin

To the Editor:

Excess nitrofurantoin (approximately 50 mg) was added to 40 ml of an appropriate test solution (0–20.0% pyridoxine hydrochloride in aqueous pH 3 or 5 buffer[1]) in a 45-ml screw-capped bottle. The tightly closed container was wrapped in aluminum foil to keep out light, placed in a constant-temperature water bath at 37 ± 0.1°, and rotated[2] for at least 20 hr. Experiments indicated that equilibrium was established within 10–16 hr. The test so-

[1] Citric acid–dibasic sodium phosphate buffer; ionic strength of 0.7.
[2] Menhold rotating apparatus, Lester, Pa.