the reciprocal of an intercept and β can be evaluated from the slope.

A visual observation of the intercepts of a Langmuir isotherm (Fig. 2, Ref. 5) shows the order of adsorbents according to α to be charcoal > talc > kaolin > magnesium trisilicate. The calculated values (Table II, Ref. 5) show the order to be charcoal > kaolin > talc > magnesium trisilicate. The discrepancy arises because the calculated value of α for talc is in error[1] and should be ~71.4 (based on an estimated $1/\alpha$ value of 1.4×10^{-2} from Fig. 2, Ref. 5). The corrected values will show that the order coincides well with visually observed intercept values.

It should be noted that, for Langmuir plots, the use of units other than moles/liter for C will not change the order of adsorbents according to α values, since α is evaluated when C equals zero. However, numerical values of α will change.

It is to be expected that the order of adsorbents would be retained regardless of the equation utilized. This would be true if the adsorption isotherms did not cross over, as in this case. The difference in order is due to the fact that the Freundlich constant k is evaluated at unit equilibrium concentration and the Langmuir constant α is evaluated at zero equilibrium concentration. If the isotherms crossed over between zero and a unit concentration, the order of adsorbents would be different.

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B. R. Hajratwala
Faculty of Pharmacy
Wayne State University
Detroit, MI 48202

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[1] There is also a typographical error in Table II, Ref. 5. Units of α should be given (adsorbed) per gram (adsorbent) and *not* gram (adsorbed) per milligram (adsorbent).

Potential Errors in Determining Freundlich and Langmuir Constants from Adsorption Isotherms: A Response

Keyphrases □ Adsorbents—determination of Freundlich and Langmuir constants, potential errors, reply □ Freundlich constants—potential errors in determination, reply □ Langmuir constants—potential errors in determination, reply

To The Editor:

In a recent publication (1) we calculated Freundlich and Langmuir constants for the adsorption of cimetidine on various adsorbents. A number of points in this article have been criticized by Hajratwala (2) and we wish to respond to some of these criticisms.

We believe the author has incorrectly assumed that the intercepts on which our values were based were read directly from the graph. Actually, both intercepts and slopes were calculated using standard linear regression methods. We also fail to see why 6-cycle paper would be necessary in any case. In addition, we feel that the calculation of the parameters based on a single point, as the author has done, is inappropriate. The accuracy of the values obtained is questionable given the closeness of the logarithmic values employed.

With respect to the use of units, we wish to point out that physical chemistry texts (3, 4) employ molarity as the unit for concentration in determining Freundlich parameters, not milligrams percent or grams percent as suggested by Hajratwala. Indeed, we are puzzled as to why this should make a difference in any case. We agree that utilizing different units will yield different values for the constants. However, one need only state which units are used and this should not affect the relative order of constants.

Finally, we acknowledge the error in Table II as pointed out by the author. The value for α is indeed 70.4 (the intercept being 1.42×10^{-2}) and the correct value of β is 15.2 $\times 10^4$ M^{-1}. We regret the miscalculation. There is a typographical error in Table II as Hajratwala notes; however, we feel that this was a misreading. The correct units are neither g(adsorbed)/mg(adsorbent) as printed nor g(adsorbed)/g (adsorbent) as stated by Hajratwala, but g(adsorbed)/M-g(adsorbent). The capital "M" (for molarity) was obviously misread as a lower case "m."

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T. Jochsberger
A. J. Cutie
Division of Pharmaceutics and Industrial Sciences
Arnold & Marie Schwartz College of Pharmacy and Health Sciences
Long Island University
Brooklyn, NY 11201

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1-Aryl-3,3-dialkyltriazenes with Antitrypanosomal Activity

Keyphrases □ Antitrypanosomal agents—1-aryl-3,3-dialkyltriazenes □ Antitumor agents—1-alkyl-3,3-dialkyltriazenes □ Triazenes, substituted—antitrypanosomal and antitumor activity

To the Editor:

We recently reported the activity of 1-(*p*-tolyl)-3-acetyl-3-methyltriazene (I), against *Trypanosoma rhodesiense* in the mouse (1). We now wish to report that a number of 1-aryl-3-alkyl-3-methyltriazenes (II) have shown significant activity against these parasites in the mouse model.

The synthesis and characterization of the 1-aryl-3-

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