

CORRECTIONS

Extracting Hydrophobic Free Energies from Experimental Data: Relationship to Protein Folding and Theoretical Models, by Kim A. Sharp, Anthony Nicholls, Richard Friedman, and Barry Honig*, Volume 30, Number 40, October 8, 1991, pages 9686–9697.

Page 9692. In Table III, the units for the amino acid molar volumes, V , should read \AA^3 per molecule.

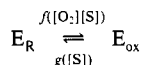
Substrate-Specific Enhancement of the Oxidative Half-Reaction of Monoamine Oxidase, by Anthony K. Tan and Rona R. Ramsay*, Volume 32, Number 9, March 9, 1993, pages 2137–2143.

Page 2140. In Table III, the k_{cat} , K_{m} , k_3 , and K_{D} values for MPTP are incorrect. The table should appear as follows:

Table III: Kinetic Parameters for Beef Liver MAO B from Steady-State and Stopped-Flow Half-Reaction Experiments

substrate	steady state		reduction		oxidation	
	k_{cat} (s^{-1})	K_{m} (mM)	k_3 (s^{-1})	K_{D} (mM)	k_{app} (s^{-1}) ^a	k_{ox} ($\text{mM}^{-1} \text{s}^{-1}$) ^b
kynuramine	2.75	0.084	13.6	1.11	2.17	2.89
benzylamine	10.0	0.36	10.9	0.14	7.6	29.4
β -phenylethylamine	3.62	0.067	572	4.5	1.8	5.35
tryptamine	0.67	0.13	0.63	0.15	2.1	5.45
5-hydroxytryptamine	0.077	0.28	0.097	0.24	1.7	4.12
5-methoxytryptamine	0.30	0.40	0.42	0.47	0.5	0.75
MPTP	3.3	0.30	3.7	0.04	6.0	23.3
MPP ⁺					no reoxidation	
none					1.3	5.49

^a At 0.238 mM O_2 . ^b The plots of K_{obsd} vs $[\text{O}_2]$ have nonzero intercepts, and the slope increases with the concentration of ligand, indicating that $\text{E}_\text{R}\text{S}$ is reoxidized faster than E_R and that $K_{\text{D}}^{\text{E}_\text{R}\text{S}}$ is high. Because the rates of oxidation and reduction of MAO B are similar, the experimental time courses describe the transition from fully reduced enzyme to a steady-state level of oxidation which is determined by the rate constants and the levels of amine and O_2 present. The approach to the steady state can be represented as



and the observed rate takes the form

$$k_{\text{obsd}} = [k_{11} + k_{12}[\text{S}]/(K_{\text{D}}^{\text{E}_\text{R}\text{S}} + [\text{S}])][\text{O}_2] + k_{13}[\text{S}]/(K_{\text{m}}^{\text{S}} + [\text{S}])$$

where k_{11} is the bimolecular rate constant for the reoxidation which is given here as k_{ox} . The detailed derivation of this equation is given in Ramsay et al. (1987).