## ERRATUM

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In the article "Synthesis and Evaluation of a Miniature Organic Model of Chymotrypsin," by Valerian T. D'Souza, K. Hanabusa, T. O'Leary, Robert C. Gadwood, and Myron L. Bender, pages 727-732: On page 731, Table 1, footnote d was inadvertently omitted; also on page 731, the sentence on lines 3-5 of the paragraph below Table 1 has been revised. For the readers' convenience, the corrected page is reprinted on the following page.

The hydrolysis of Esters by thymotrypsin (Real and Artificial)				
ENZYME	SUBSTRATE	рН <sup>С</sup>	k <sub>cat</sub> x 10 <sup>-2</sup> (sec <sup>-1</sup> )	$\sum_{m}^{2d} \kappa_{m} \times 10^{-5}^{d}$
Chymotrypsin <sup>a</sup>	p-nitrophenyl acetate	8.0	1.1	4.0
Artificial chymotrypsin <sup>b</sup>	m-t-butylphenyl acetate	10.7	2.8	13.3

Table 1

The Hydrolysis of Esters by Chymotrypsin (Real and Artificial)

The same general approach was used by Breslow in synthesizing models of ribonuclease (9), transaminase (7), and a thiamine-dependent enzyme (10). Ribonuclease cleaves nucleotides, whereas chymotrypsin cleaves peptides and esters, a far more general occurrence in nature, since every living material is made of protein which contains many peptide bonds. Our model contains no coenzyme function, whereas transaminase and thiamine-dependent enzymes contain the coenzymes, pyridoxamine phosphate, and thiamine pyrophosphate.

We believe that our miniature model of chymotrypsin is the best enzyme model known, because there is more known about chymotrypsin than almost any other enzyme,(11) and our model tests it structure and mechanism directly. This miniature organic model of chymotrypsin is the ultimate test of the "proton transfer relay" system and other theories forwarded to explain the mechanism of action of chymotrypsin.

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<sup>&</sup>lt;sup>a</sup> The concentration of the stock solution was determined to be 1.0 x  $10^{-3}$  M (83% purity) by active site titration (8).

b The concentration of the stock solution was determined to be 3 x  $10^{-3}$  M (96% purity) by UV absorbance.

The pH selected was the predetermined optimum pH for both the real and artificial chymotrypsins.

 $<sup>^{</sup>m d}$  The error limit in  ${
m k}_{
m cat}$  is  $\pm$  5%; the error limit in  ${
m K}_{
m m}$  is  $\pm$  10%.