

Table referenced as "Ionising groups of ribonuclease. (Tanford)"

Contributors

Gratzer, W. B. (Walter Bruno), 1932-

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Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
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0.03 shown in Table I. The numbers of the various solid types of groups are in agreement with amino acid analysis. The intrinsic pK 's are within the range of expected for groups lying at the surface, in contact with solvent, except in so far as the carboxyl groups are concerned, about half of these having an

SUMMARY OF NUMERICAL RESULTS

	Number of groups		Intrinsic pK	
	Found by titration	Predicted by amino acid content	Obsd.	Normal value ^d
α -Carboxyl	(1) ^a	1	(3.75) ^a	3.75
β, γ -Carboxyl	10.2 ^b	10.2 ^b	See text	4.6
Imidazole	4	4	6.5	6.5-7.0
α -Amino	(1) ^a	1	7.8	7.8
ϵ -Amino	10	10	10.2	10.1-10.6
Phenolic ^c	3 ^c } 3 ^c }	6	{ 9.95 ^c Inaccessible ^c	9.6
Guanidyl	4	4	≥ 12	> 12

rather than 10.2 free carboxyl groups. The 0.2 in the predicted value is due to the presence of more than one component in the ribonuclease used. ^c Cf. ref. 14. ^d The normal values have been discussed in several of our preceding papers.

The curves drawn through the data of Fig. 1 are curves computed with the constants of Table I, and the "phenolic" values of w , *i.e.*, 0.112, 0.093 and 0.061, respectively, at $\mu = 0.01, 0.03$ and 0.15 . There is a slight discrepancy between calculation