

Table I Peptide Bond Hydrolyses Parameters^a

Reaction	$\text{pK}_b - \text{pK}_a$	$-\Delta G_i$	ΔG_m	$-\Delta G_h$
$\text{GG} \rightarrow \text{G} + \text{G}$	7.3	9.9	6.3	3.6 ^b
$\text{GGG} \rightarrow \text{G} + \text{GG}$	5.7	7.8	5.3	2.5
$\text{GGG} \rightarrow \text{GG} + \text{G}$	6.5	8.8	6.3	2.5
$\text{GGGG} \rightarrow \text{G} + \text{GGG}$	5.6	7.6	5.3	2.3
$\text{GGGG} \rightarrow \text{GG} + \text{GG}$	4.9	6.7	5.3	1.4
$\text{GGGG} \rightarrow \text{GGG} + \text{G}$	6.4	8.7	6.3	2.4
$\text{polyG} \rightarrow \text{G} + \text{polyG}_{-1}$	5.6	7.6	5.3	2.3
$\text{polyG} \rightarrow \text{polyG}_{-1} + \text{G}$	6.4	8.7	6.3	2.4
NBTGA ^c	4.2	5.7	5.3	0.4 ^b

^a Free energy changes (ΔG) in kcal/mole at 25° or 37°C. The change in temperature does not affect the values within their uncertainties of about 0.2 kcal/mole.

^b Experimental values; all other values in last two columns are calculated.

^c *N*-benzoyltyrosine–glycinamide \rightarrow *N*-benzoyltyrosine + glycinamide.