

Supporting Information

List of references surveyed in the introduction

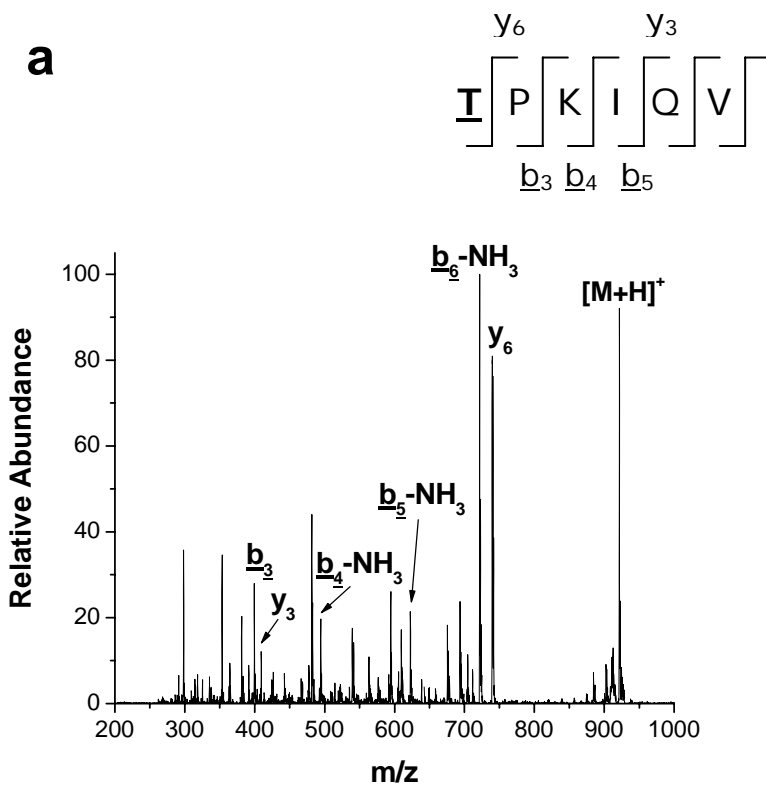
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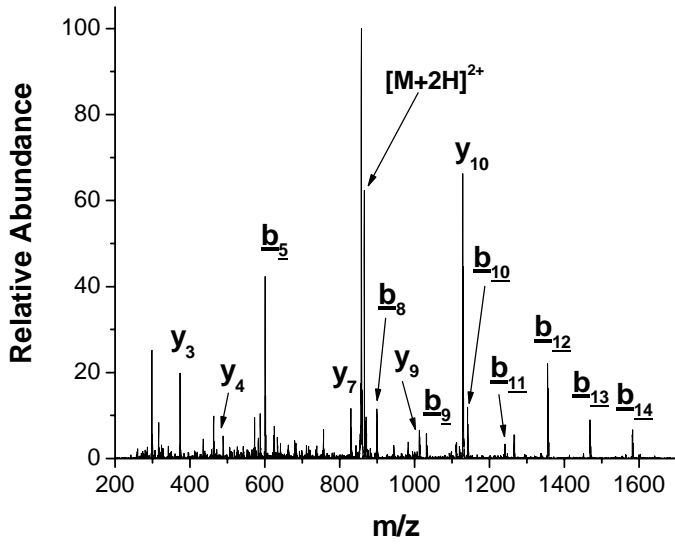
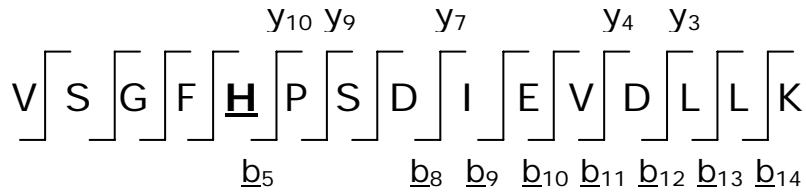
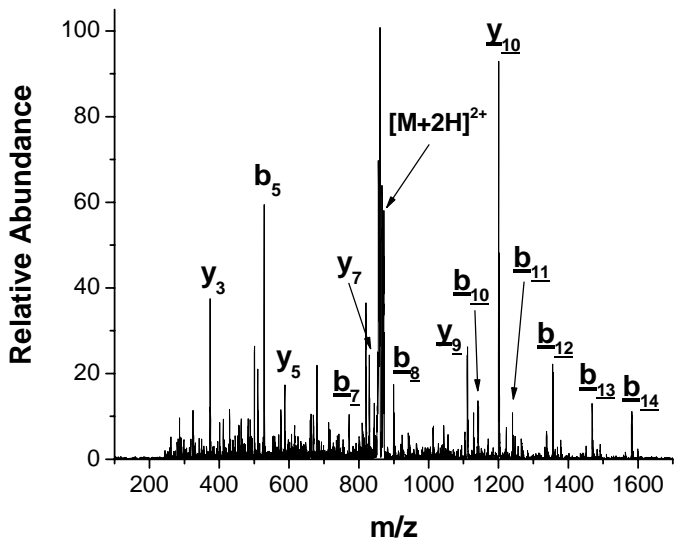
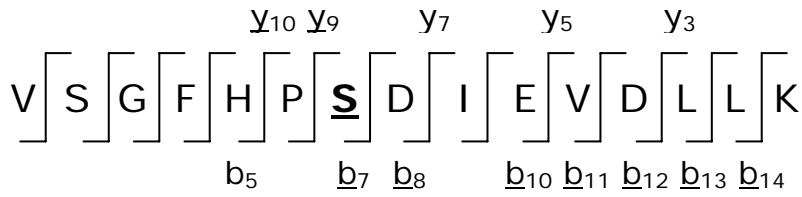
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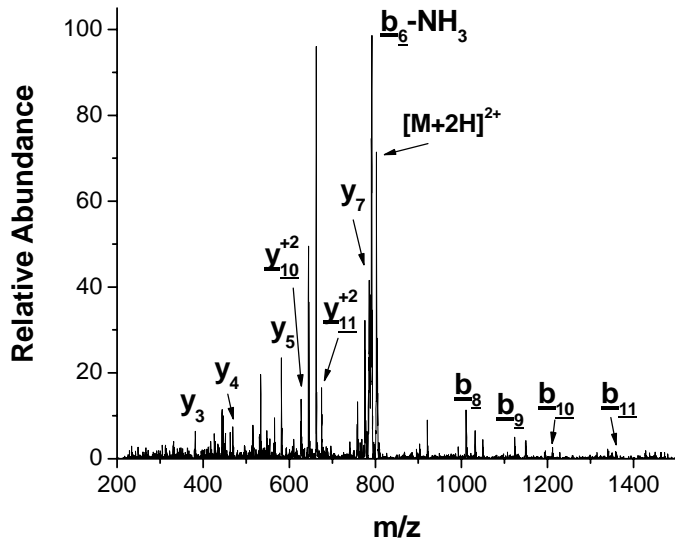
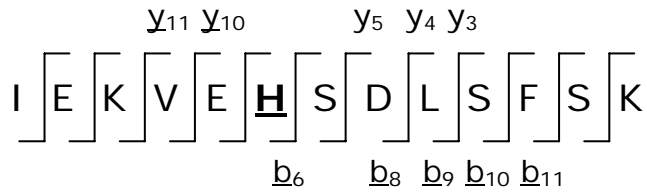
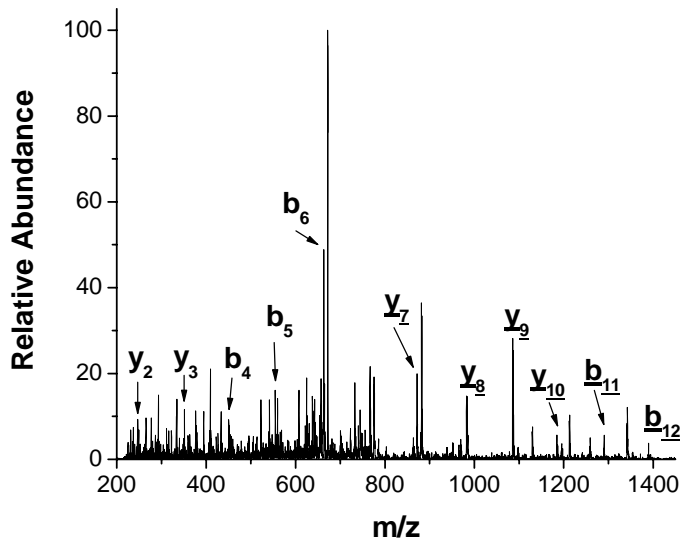
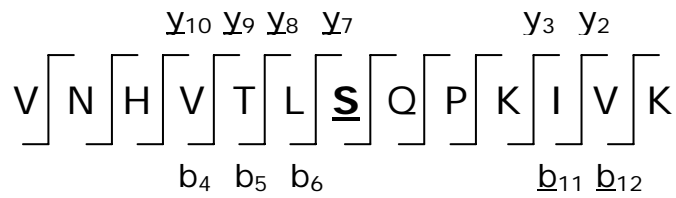
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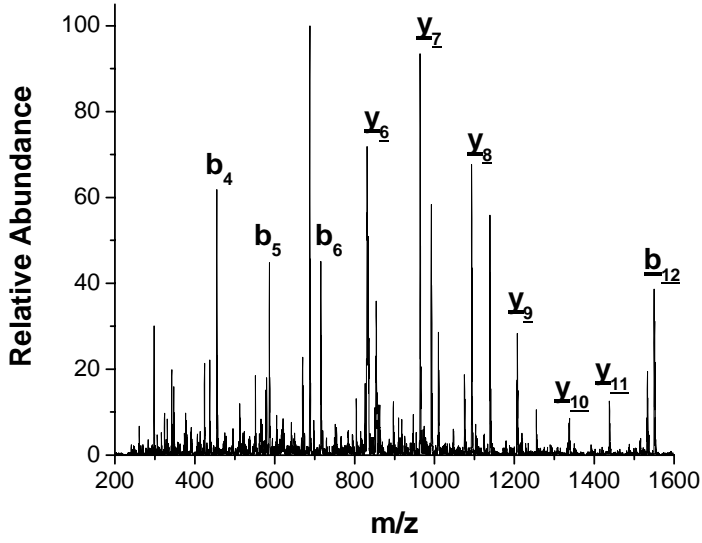
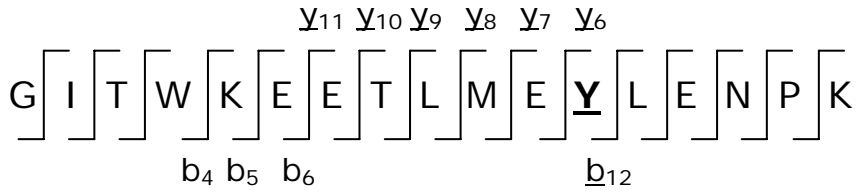
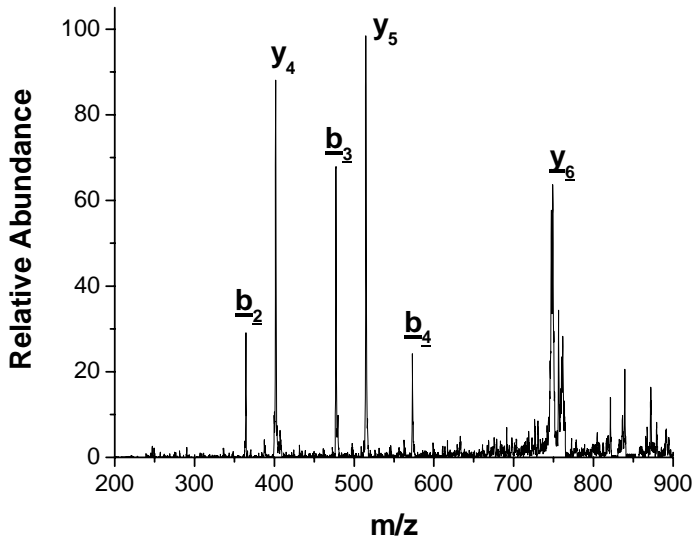
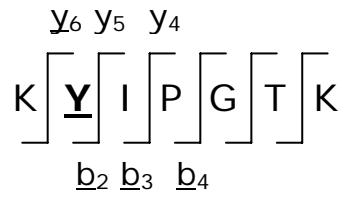
Papers using CD to check protein structure:	7 of 61 (11.5 %)
Papers using fluorescence to check protein structure:	3 of 61 (4.9 %)
Papers minimizing total modifications:	1 of 61 (1.6 %)
Papers using activity assays to check effect of modification:	13 of 61 (21.3 %)
Papers using nothing to ensure protein structural integrity:	37 of 61 (61 %)

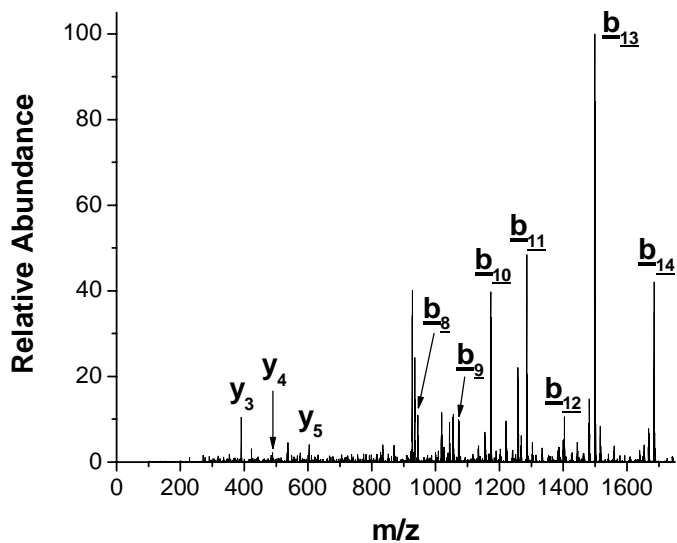
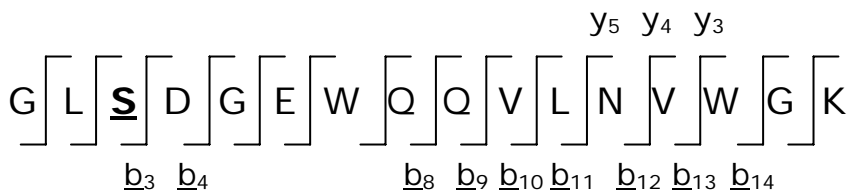
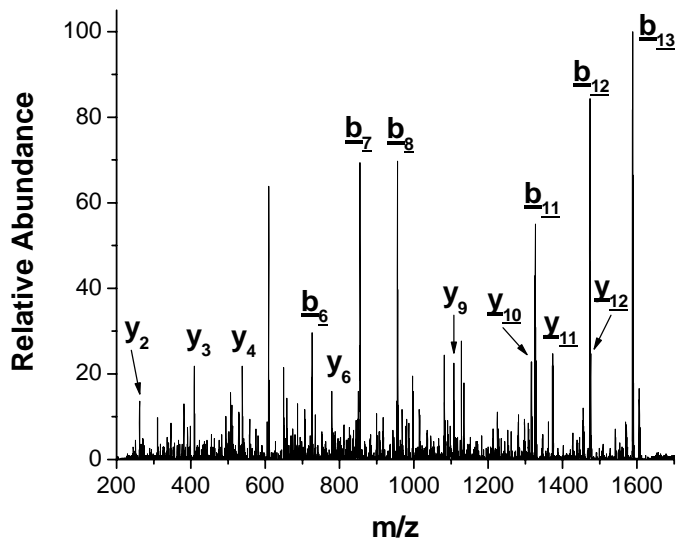
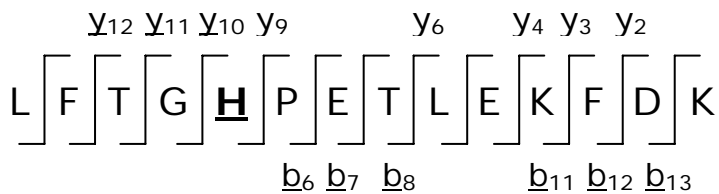
MS/MS spectra of all the peptides in Tables 1, 2, and 3 of the manuscript
(except the two peptides shown in Figure 1 of the manuscript)



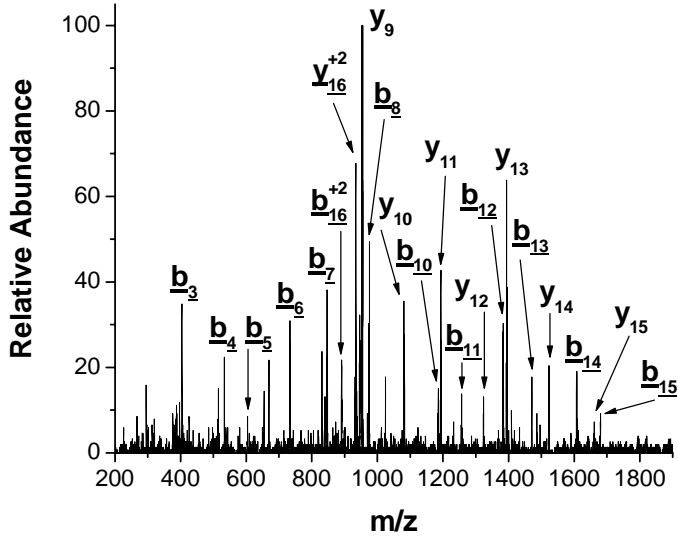
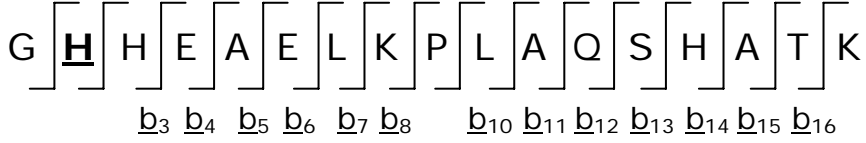
b**c**

Q**Q**

h**i**

j**k**

n y_{16} y_{15} y_{14} y_{13} y_{12} y_{11} y_{10} y_9



o

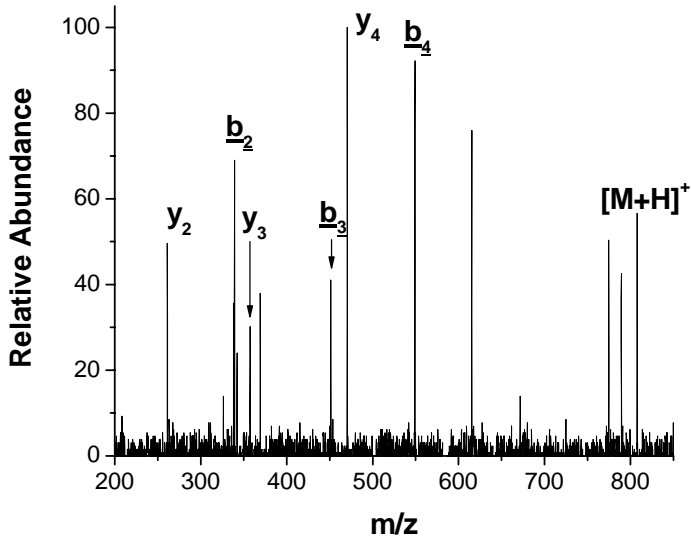
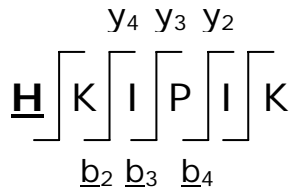


Figure S1: MS/MS spectra showing modification of (a) Thr4 of β 2m, (b) His31 of β 2m, (c) Ser33 of β 2m, (d) His51 of β 2m, (e) Ser88 of β 2m, (f) His26 of cytochrome c, (g) Tyr48 of cytochrome c, (h) Tyr67 of cytochrome c, (i) Tyr74 of cytochrome c, (j) N-terminal/Ser3 of myoglobin, (k) His36 of myoglobin, (l) His48 of myoglobin, (m) His64 of myoglobin, (n) His81 of myoglobin, and (o) His97 of myoglobin.

Dose-response plot showing the effect of protein concentration on reactivity

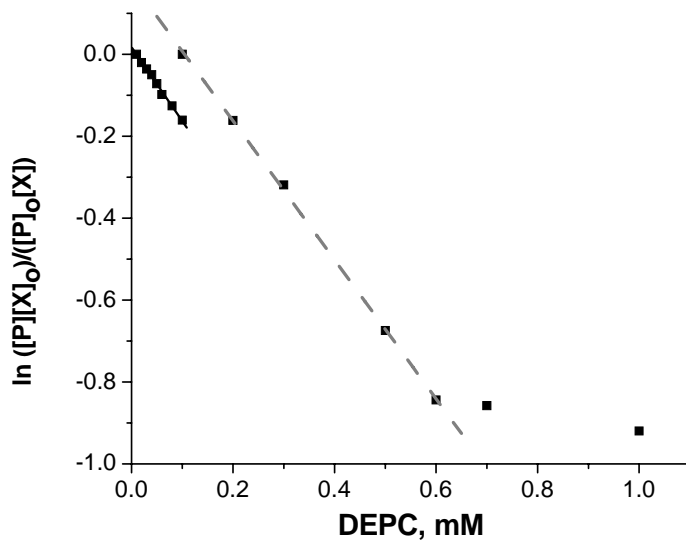


Figure S2: Dose-response plot showing the effect of protein concentration on the DEPC modification rate. The modification rate coefficients, k , are 0.027 ± 0.001 for $10 \mu\text{M}$ (black straight line) and 0.0268 ± 0.0004 for $100 \mu\text{M}$ (gray dashed line). The k values are obtained by dividing the measured slope by the reaction time.