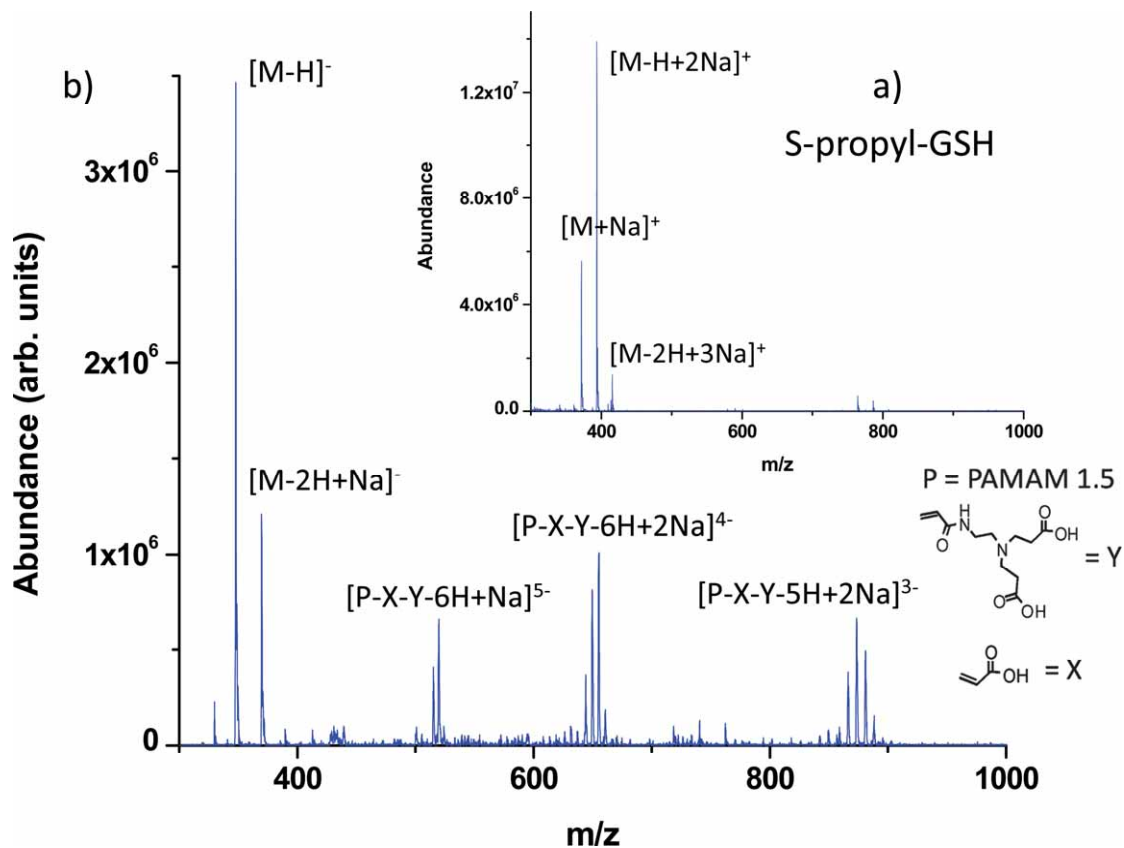
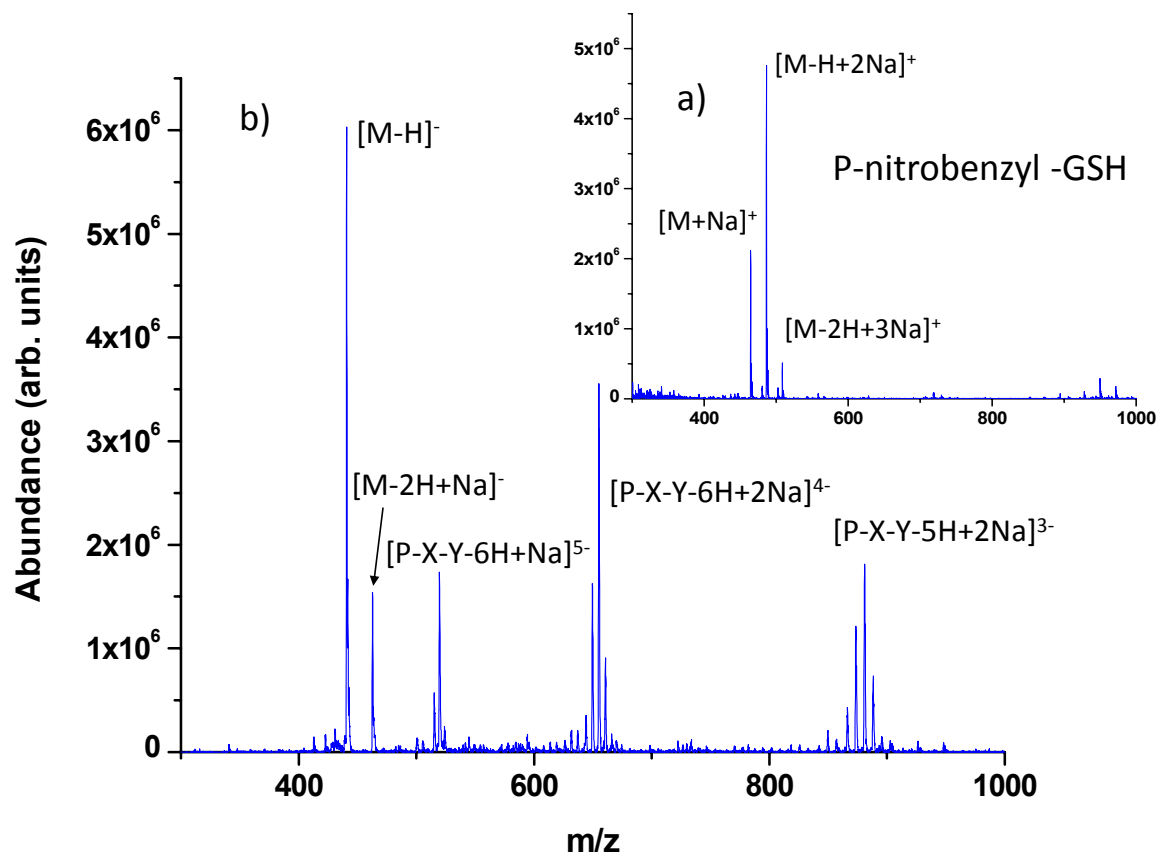


Supplementary data for “Conversion of Multiple Analyte Cation Types to a Single Analyte Anion Type via Ion/Ion Charge Inversion” by Kerry M. Hassell, Yves LeBlanc, and Scott A. McLuckey:

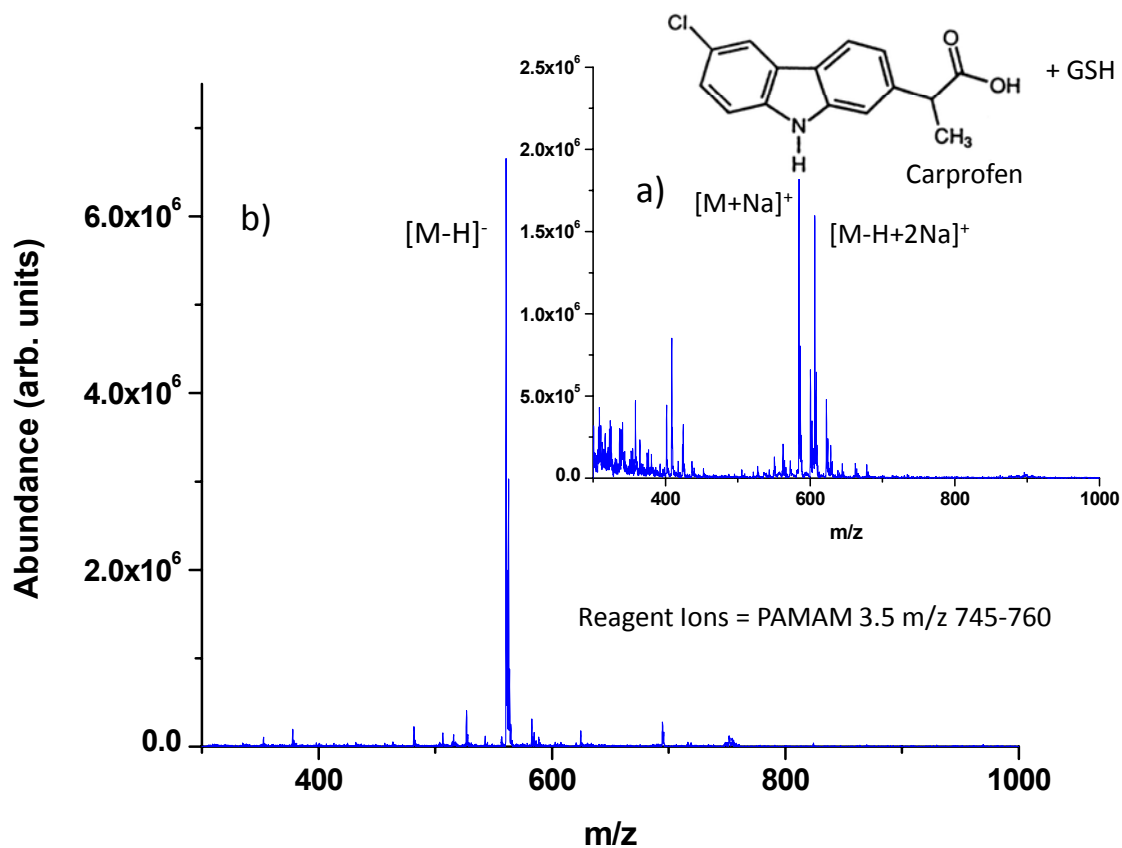
Supplementary figures:



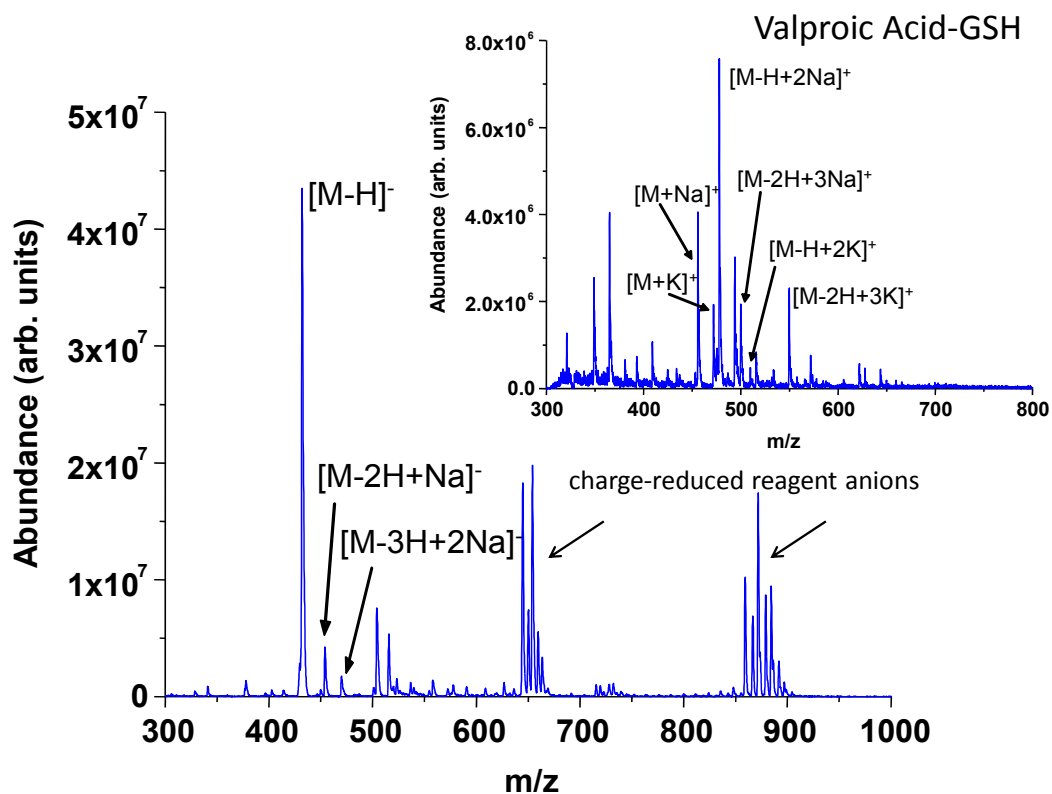
**Figure S1** – a) Positive ion electrospray mass spectrum of S-propyl glutathione and b) negative ion spectrum after ion/ion charge inversion using [P-X-Y-6H]<sup>6-</sup> reagent anions, where P = PAMAM generation 1.5.



**Figure S2** – a) Positive ion electrospray mass spectrum of P-nitrobenzyl glutathione and b) negative ion spectrum after ion/ion charge inversion using  $[P-X-Y-6H]^{0-}$  reagent anions, where P = PAMAM generation 1.5 (see Figure S1 for structures of X and Y).



**Figure S3** – a) Positive ion electrospray mass spectrum of the GSH conjugate of carprofen (see structure in the figure) and b) negative ion spectrum after ion/ion charge inversion using anions in the m/z region of 745-760 derived from nanoelectrospray of PAMAM generation 3.5.



**Figure S4** –a) Positive electrospray mass spectrum of valproic acid-GSH with significant  $[M+K]^+$  signal and b) negative ion spectrum after ion/ion charge inversion using  $[P-X-Y-6H]^{6-}$  reagent anions, where P = PAMAM generation 1.5 (see Figure S1 for structures of X and Y).