Supporting Information for

Electrospray Droplet Exposure to Gaseous Acids for the Manipulation of Protein Charge State Distributions

Anastasia Kharlamova, Boone M. Prentice, Teng-Yi Huang and Scott A. McLuckey*

Department of Chemistry Purdue University West Lafayette, IN 47907-2084

Table of Contents

Figure S-1 - Positive nESI spectrum of myoglobin denatured with 1% acetic acid with a) no acid vapor, b) hydrochloric acid vapor leak-in. All charge states correspond to apomyoglobin peaks.

Figure S-2 - Positive nESI spectrum of native (a-c) and DTT denatured (d-f) lysozyme with no acid vapor (a & d), formic acid vapor (b & e) and hydrochloric acid vapor (c & f) leak-in.

Figure S-3 - Positive nESI spectrum of DTT denatured α -lactalbumin (a-b) and bovine serum albumin (c-d) with no acidic vapor (a & c) and hydrochloric acid vapor (b & d) leak-in.

Figure S-4 - Positive nESI spectrum of cytochrome c (a-c) and ubiquitin (d-f) in ammonium acetate buffer solution with no acidic vapor (a & c), formic acid vapor (b &d) and hydrochloric acid vapor (e & f) leak-in.

Figure S-5 - Positive nESI spectrum of ubiquitin in 60% methanol (a-c) and 60% acetonitrile (d-f) with no vapor (a &d), formic acid vapor (b & e) and HCl vapor (c & f) leak-in.



Figure S-1. – Positive nESI spectrum of myoglobin denatured with 1% acetic acid with a) no acid vapor, b) hydrochloric acid vapor leak-in. All charge states correspond to apomyoglobin peaks.



Figure S-2. – Positive nESI spectrum of native (a-c) and DTT denatured (d-f) lysozyme with no acid vapor (a & d), formic acid vapor (b & e) and hydrochloric acid vapor (c & f) leak-in.



Figure S-3. – Positive nESI spectrum of DTT denatured α -lactalbumin (a-b) and bovine serum albumin (c-d) with no acidic vapor (a & c) and hydrochloric acid vapor (b & d) leak-in.



Figure S-4. – Positive nESI spectrum of cytochrome c (a-c) and ubiquitin (d-f) in ammonium acetate buffer solution with no acidic vapor (a & c), formic acid vapor (b &d) and hydrochloric acid vapor (e & f) leak-in.



Figure S-5. – Positive nESI spectrum of ubiquitin in 60% methanol (a-c) and 60% acetonitrile (d-f) with no vapor (a &d), formic acid vapor (b & e) and HCl vapor (c & f) leak-in.