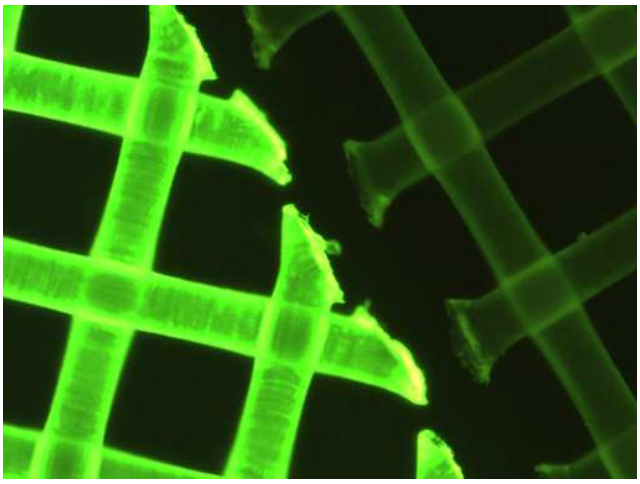
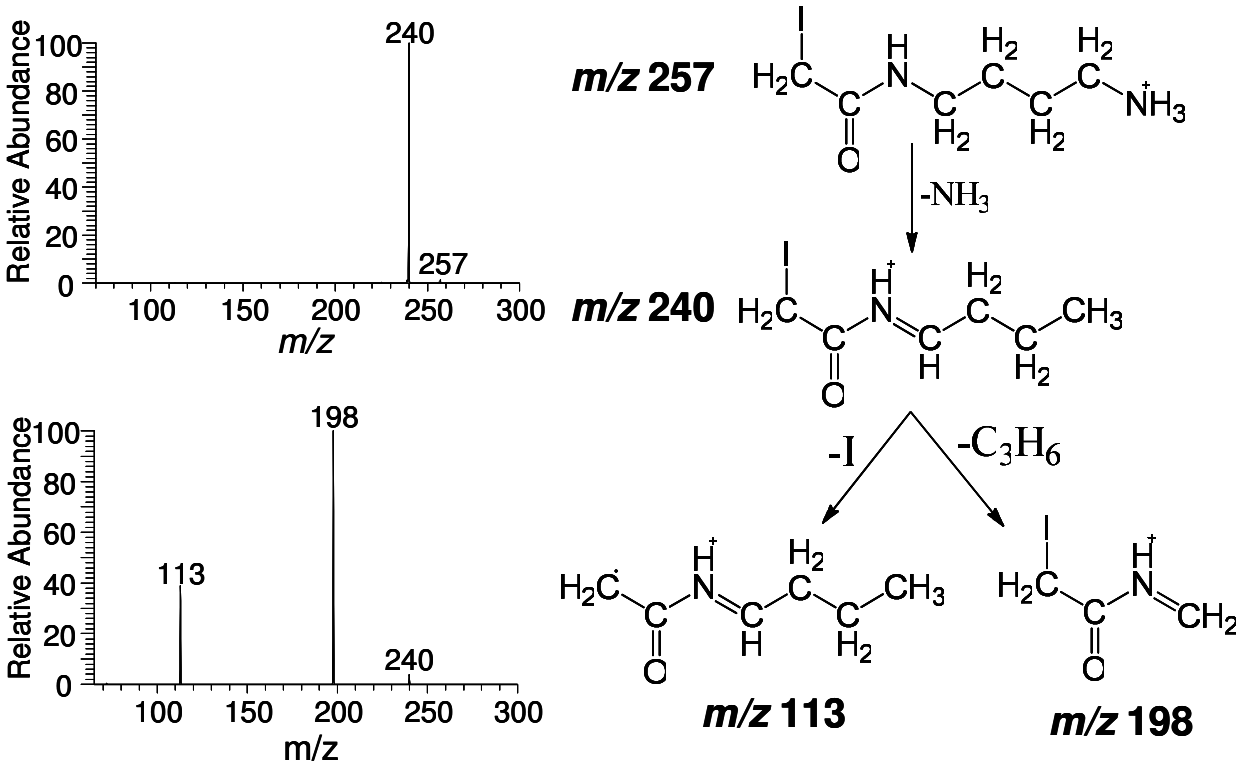
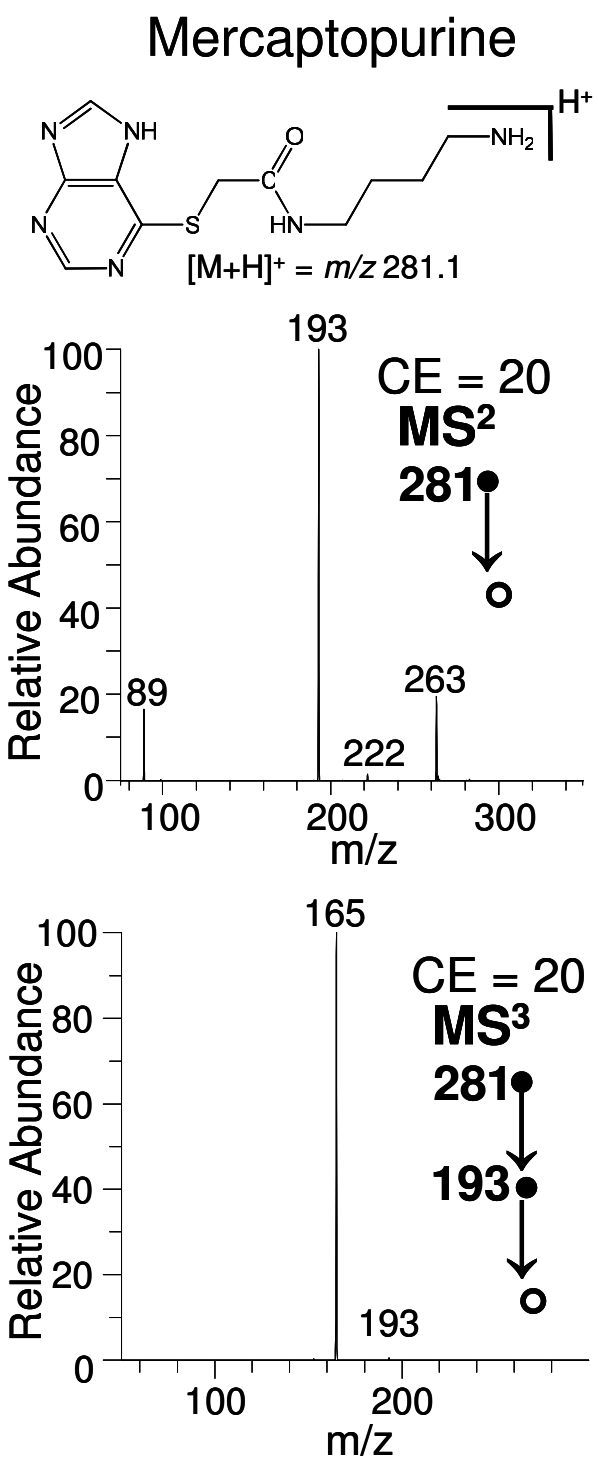


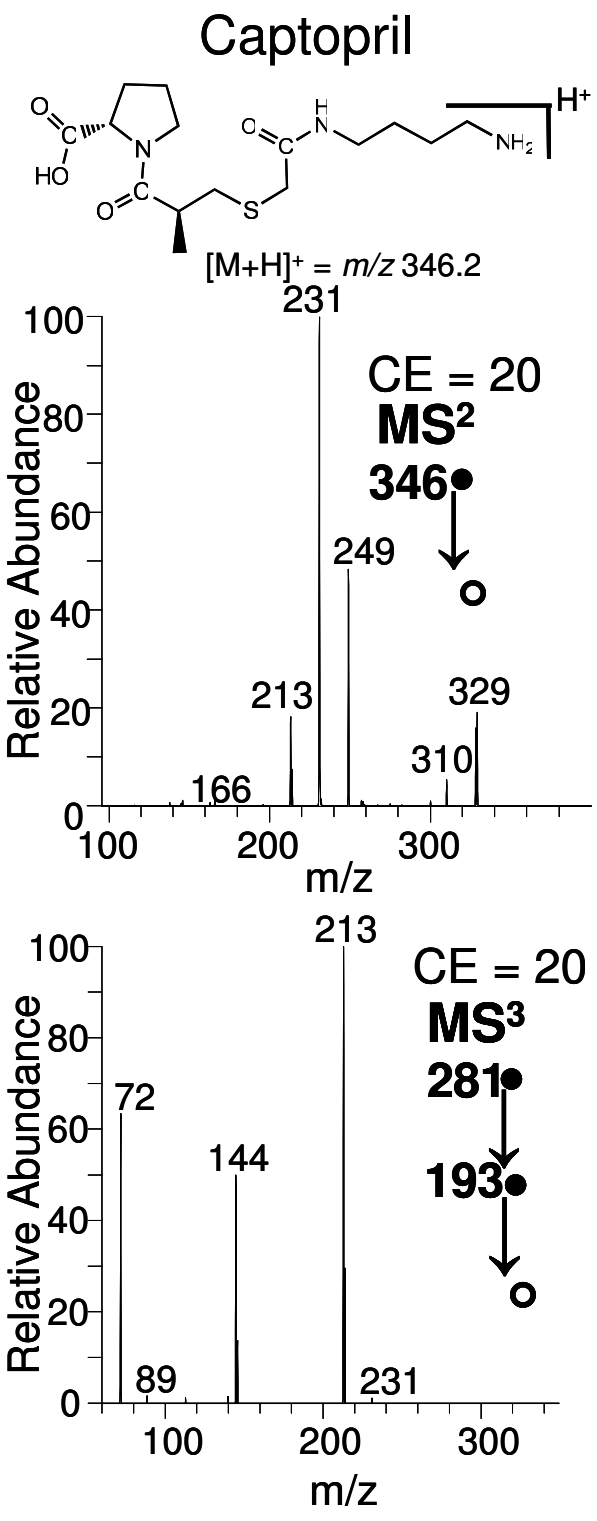
Supporting Information Figure S1. Fluorescent micrograph comparing neutravidin (FITC) derivatized and underivatized polyamide mesh materials. Neutravidin is coupled uniformly across the mesh surface



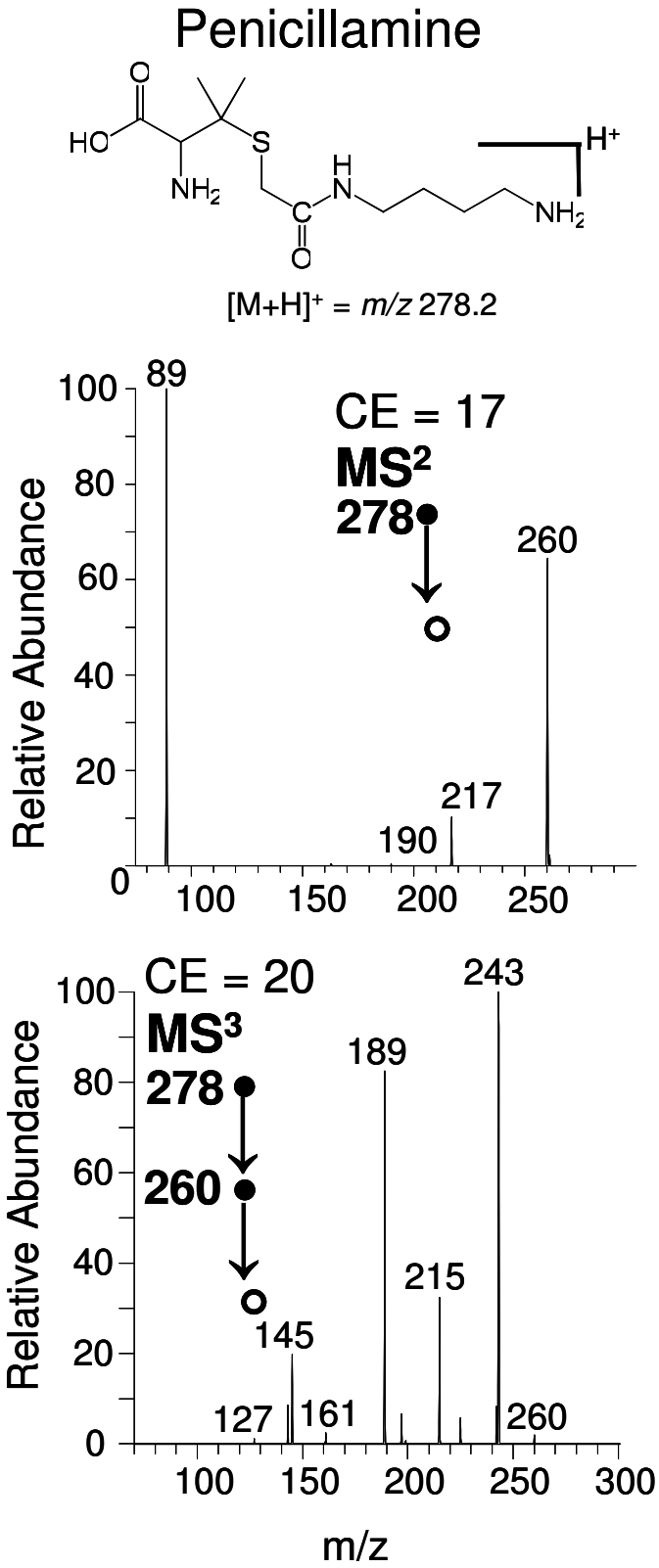
Supporting Information Figure S2. Tandem mass spectra and fragmentation pathways for iodoacetamidyl-butylamine (IABA), the reporter ion for photocleaved $VICAT_{SH}$. Upon CID the precursor ion of m/z 257 undergoes the loss of ammonia to form the product ion of m/z 240. After isolation and further CID, this product ion produces the MS^3 product ions of m/z 198 and m/z 113.



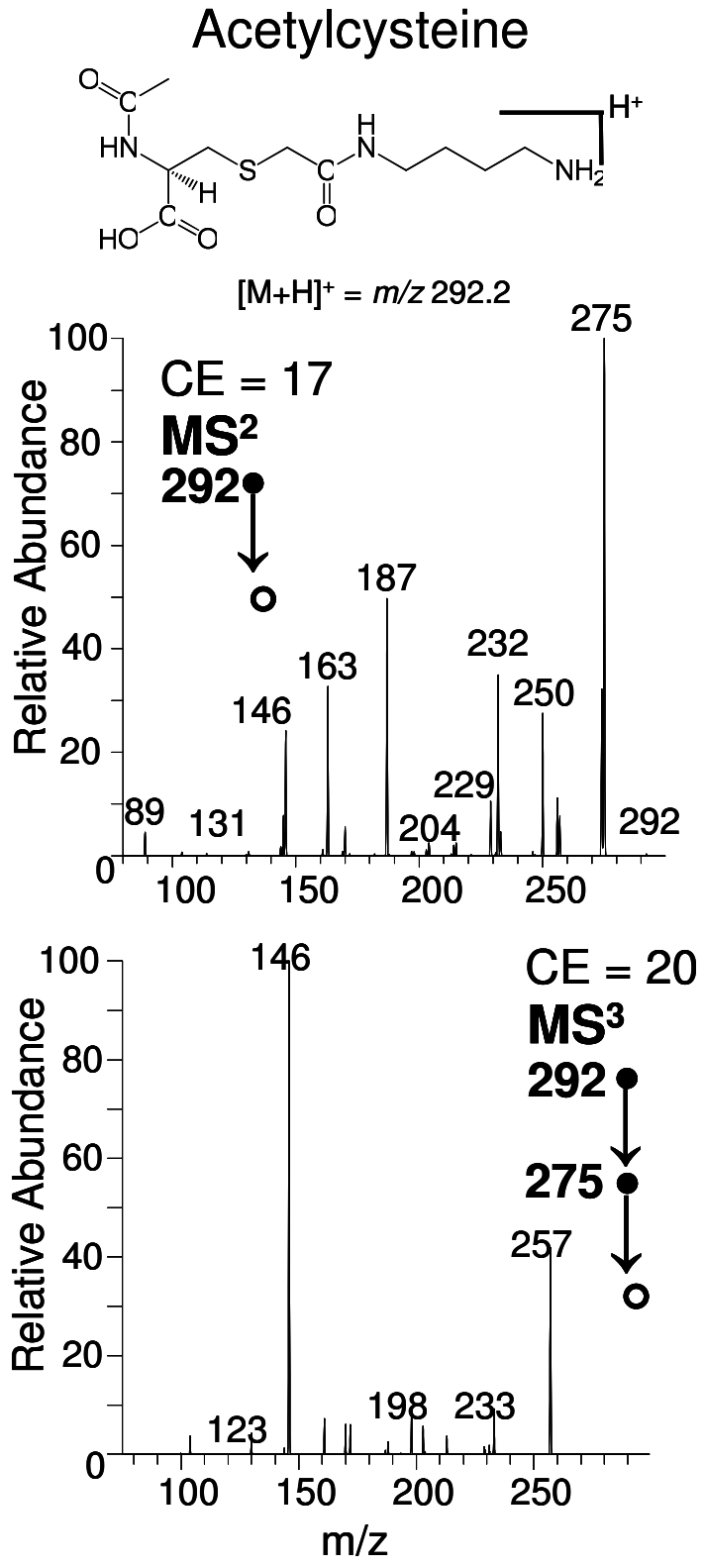
Supporting Information Figure S3. Tandem mass spectra for mercaptopurine captured by $VICAT_{SH}$.



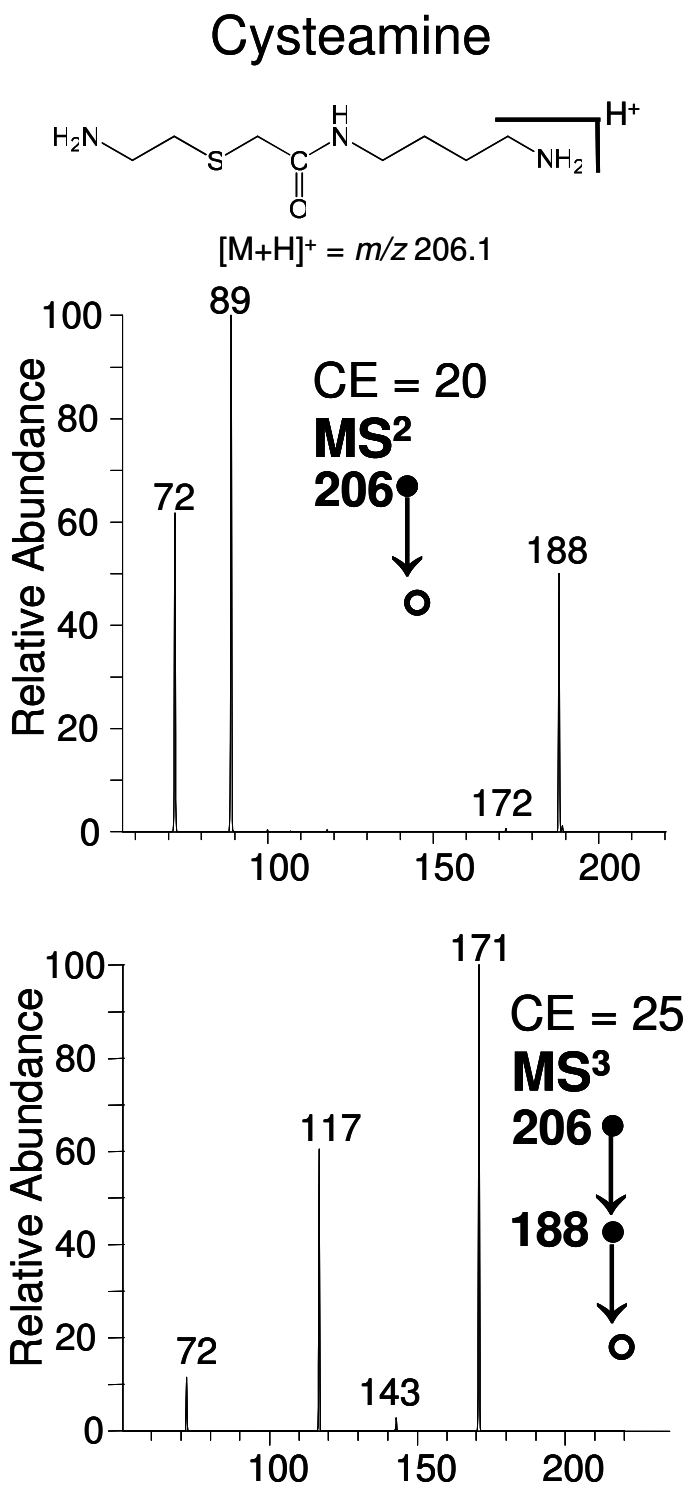
Supporting Information Figure S4. Tandem mass spectra for captopril captured by $VICAT_{SH}$.



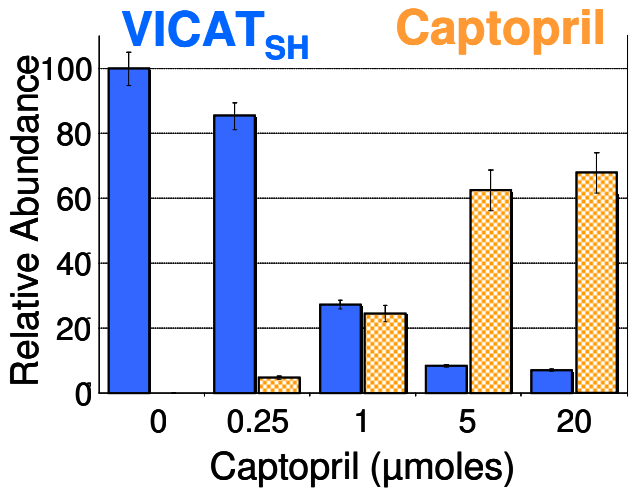
Supporting Information Figure S5. Tandem mass spectra for penicillamine captured by $VICAT_{SH}$.



Supporting Information Figure S6. Tandem mass spectra for acetylcysteine captured by $VICAT_{SH}$.



Supporting Information Figure S7. Tandem mass spectra for cysteamine captured by $VICAT_{SH}$.



Supporting Information Figure S8. Relative abundance of VICAT$_{SH}$ and captopril ions observed at various captopril concentrations (µmoles per 1 mL of solution). The relative response of VICAT$_{SH}$ decreases as the concentration of captopril in solution increases. The response for captopril plateaus at high solution concentration, thereby indicating saturation of the mesh.