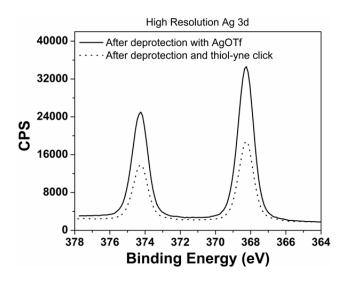
## Synthesis of Multifunctional Polymer Brush Surfaces via Sequential and Orthogonal Thiol-Click Reactions

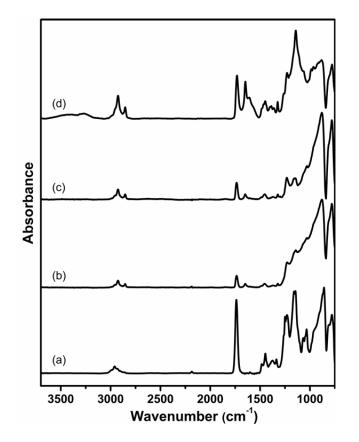
Santosh B. Rahane,<sup>a</sup> Ryan M. Hensarling, <sup>a</sup> Bradley J. Sparks, <sup>a</sup> Christopher M. Stafford<sup>b</sup> and Derek L. Patton<sup>a</sup>\*

<sup>a</sup>School of Polymers and High Performance Materials, University of Southern Mississippi, Hattiesburg, Mississippi, 39406.

<sup>b</sup>Polymers Division, National Institute of Standards and Technology, Gaithersburg, Maryland 20899



**Figure S1**. High resolution Ag3d XPS spectra of p(NCOMA-stat-PgMA-TMS) after clicking NCOMA with benzyl mercaptan and TMS deprotection with AgOTf (solid line) and after thiol-yne click with dodecanethiol. The presence of silver supports the formation of a silver acetylide complex within the brush, but also shows that residual silver remains even after thiol-yne click.



**Figure S2**. ATR-FTIR spectrum for p(BrMA-stat-PgMA) a) synthesized by SIP of 1:1 v/v BrMA:PgMA; b) after thiol-bromo click with dodecanethiol; c) after deprotection using AgOTf; and d) after thiol-yne click with N-acetyl cysteine.