

Abstract Submitted  
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**Biomolecule surface patterning by aqueous polymer nanografting (APN)** ROBERT DAVIS, KATHERINE BARNETT, JODI KNOEBEL, MATTHEW LINFORD, Brigham Young University — We have demonstrated a method to chemically pattern aqueous polymer layers on the nanoscale. An atomic force microscope (AFM) was used to mechanically remove positively charged polymers from silica and mica surfaces with submicron resolution in liquid. Polyallyl amine (PAA) and polylysine were both been patterned creating 10 and 20 micron boxes with nanometer scale edge transition lengths. These patterns can serve as templates for patterning lipid and protein layers in buffer environments where pH and concentration can be controlled.

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