SUPPORTING INFORMATION

Nanopatterned Extracellular Matrices Enable Cell-Based Assays with a Mass Spectrometric Readout

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Figures showing nanopattern arrangement across multiple length scales, optical micrograph of MHA patterned features after wet etching, and XPS analysis of monolayers.

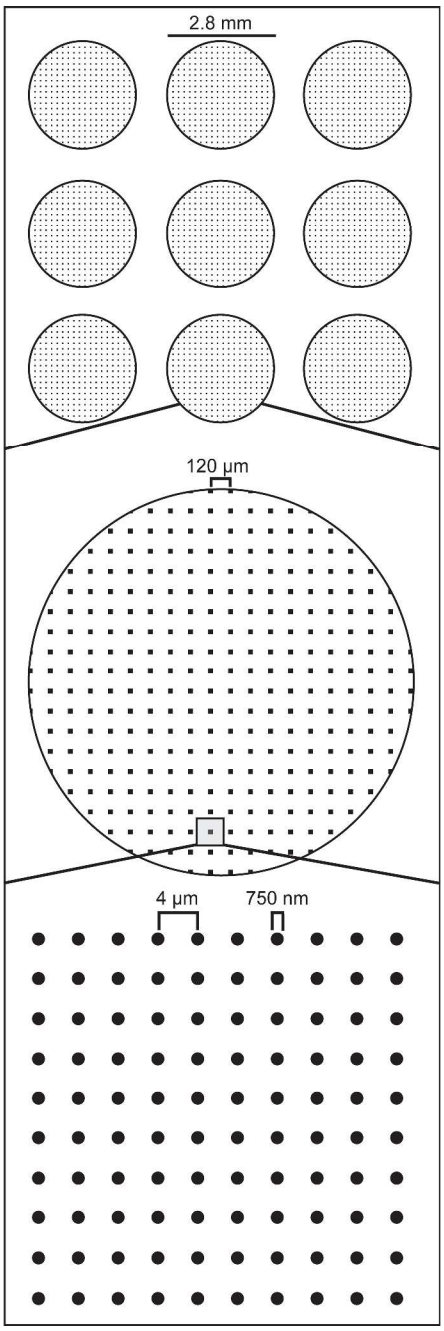

Figure S1. Pattern arrangement across multiple length scales. Nanoarrays were prepared on 384-well format gold islands, where each island was patterned using PPL to yield ~ 428 arrays of MHA features. Each array was patterned over a 40 x 40 μm^2 area having a total of 100 MHA features arranged in a 10 x 10 square matrix. The size of each individual MHA feature corresponds to ~ 750 nm.

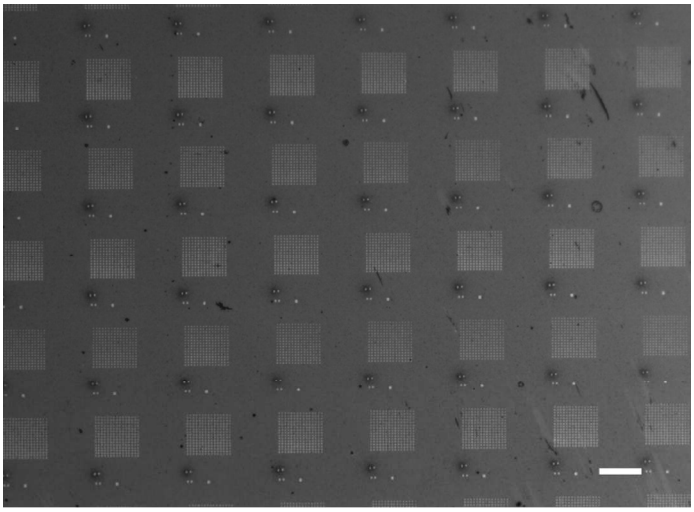

Figure S2. MHA features arranged in a square array patterned by polymer pen lithography (PPL). Optical micrograph of raised gold features ~1 μm in diameter made by chemical etching (with an aqueous solution of 13.3 mM $Fe(NO_3)_3$ and 20 mM thiourea) a portion of a glass slide having PPL-patterned mercaptohexadecanoic acid (MHA) features. The scale bar is 60 μm.

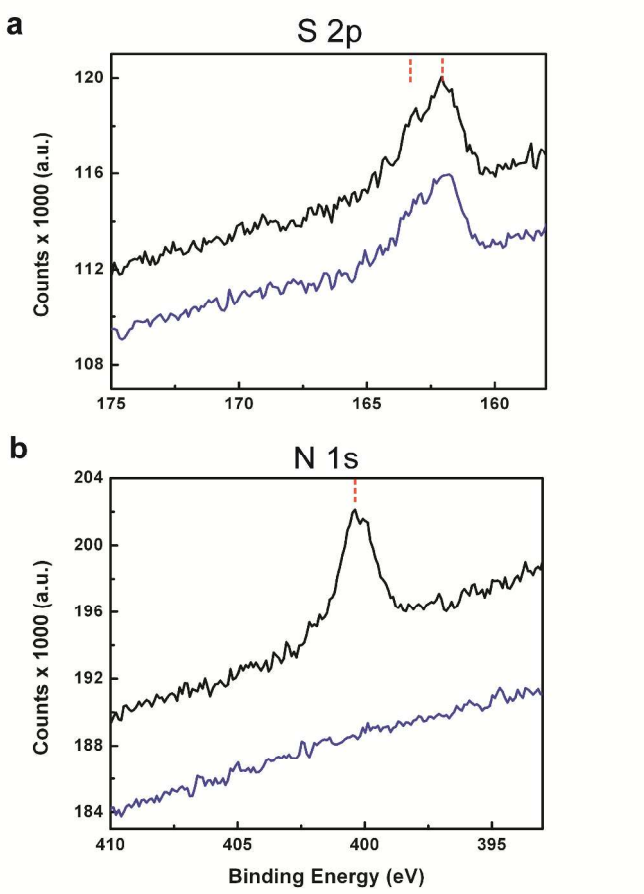

Figure S3. XPS spectra collected after peptide immobilization on Au regions that present a maleimide-terminated monolayer along with MHA nanoarrays. The presence of sulfur (a) and nitrogen (b) peaks indicate the availability of amide bonds and thiols on the surface (black trace), while a control surface consisting of a uniform MHA monolayer (blue trace) only shows presence of thiols. Dashed lines denote the N (1s) and S (2p) peak positions.