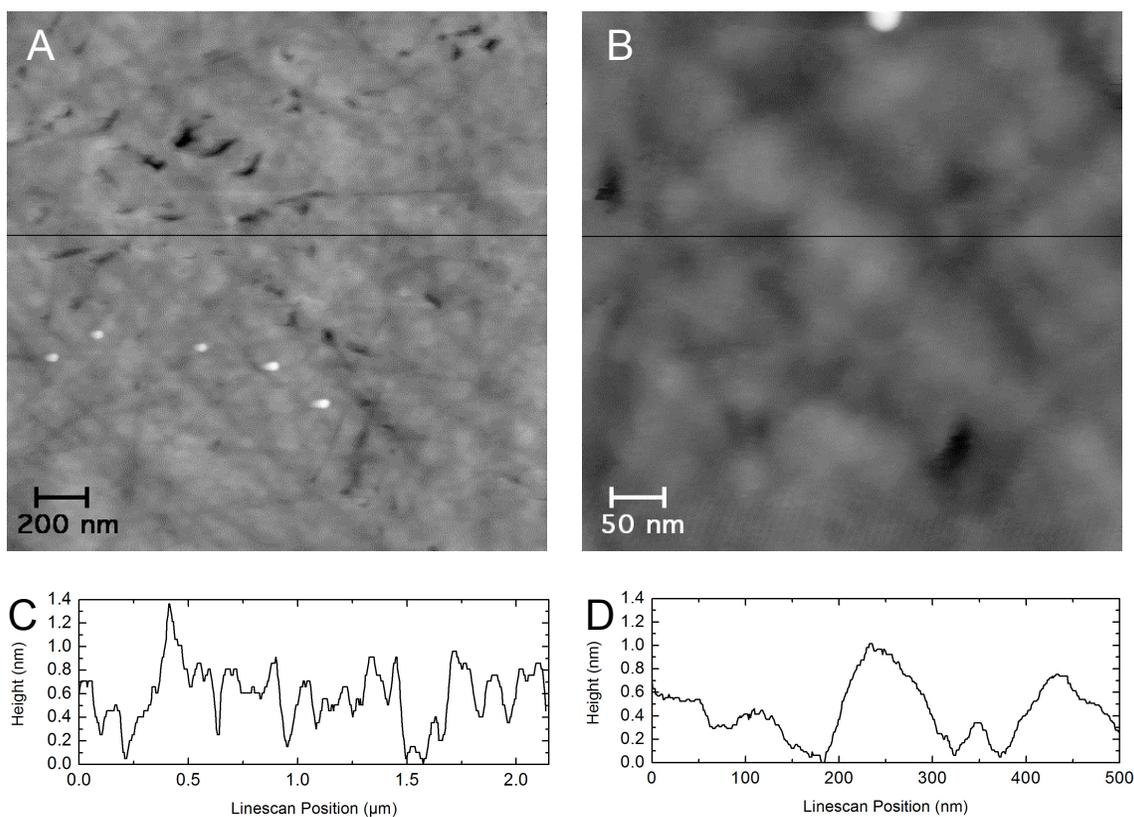


# Directed Nanoparticle Motion on an Interfacial Free Energy Gradient

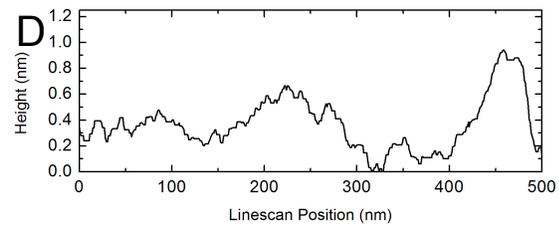
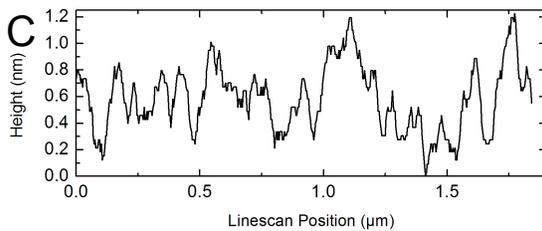
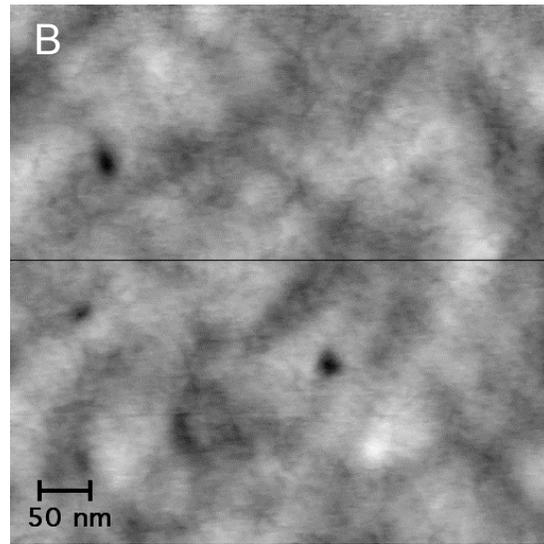
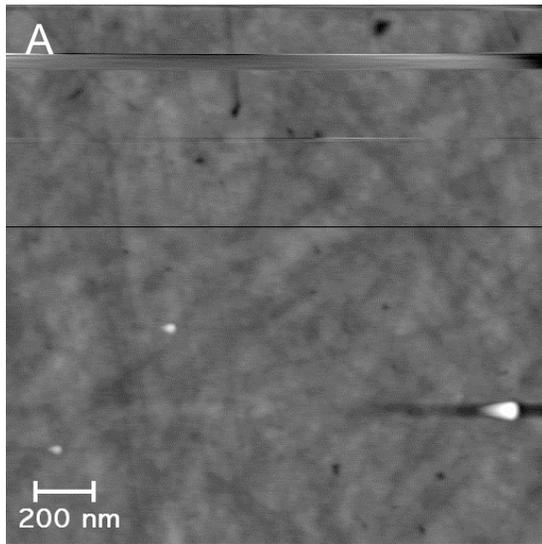
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Supplemental Figure S1: Representative atomic force microscope images of fused silica wafers coated with hexamethyldisilazane as described in the text. (A)  $2\ \mu\text{m} \times 2\ \mu\text{m}$  region. The rms roughness of this image is 0.26 nm. (B)  $500\ \text{nm} \times 500\ \text{nm}$  region. The rms roughness of the surface is 0.28 nm. (C) Cross sectional line scan along the path marked by the black horizontal line if figure (A). (D) Cross sectional line scan along the path marked by the black horizontal line if figure (B).



Supplemental Figure S2: Representative atomic force microscope images of fused silica wafers coated with hexamethyldisilazane and then photodegraded for 200 seconds as described in the text. (A)  $2\ \mu\text{m} \times 2\ \mu\text{m}$  region. The rms roughness of this image is 0.37 nm. (B)  $500\ \text{nm} \times 500\ \text{nm}$  region. The rms roughness of the surface is 0.31 nm. (C) Cross sectional line scan along the path marked by the black horizontal line if figure (A). (D) Cross sectional line scan along the path marked by the black horizontal line if figure (B).