

Supplementary Information to

Surface Aging Investigation by Means of AFM-
Based Methodology and the Evolution of
Conservative Nanoscale Interactions

Matteo Chiesa*, Chia-Yun Lai

Laboratory for Energy and Nano-Sciences, Khalifa University of Science and Technology, Abu
Dhabi, United Arab Emirates.

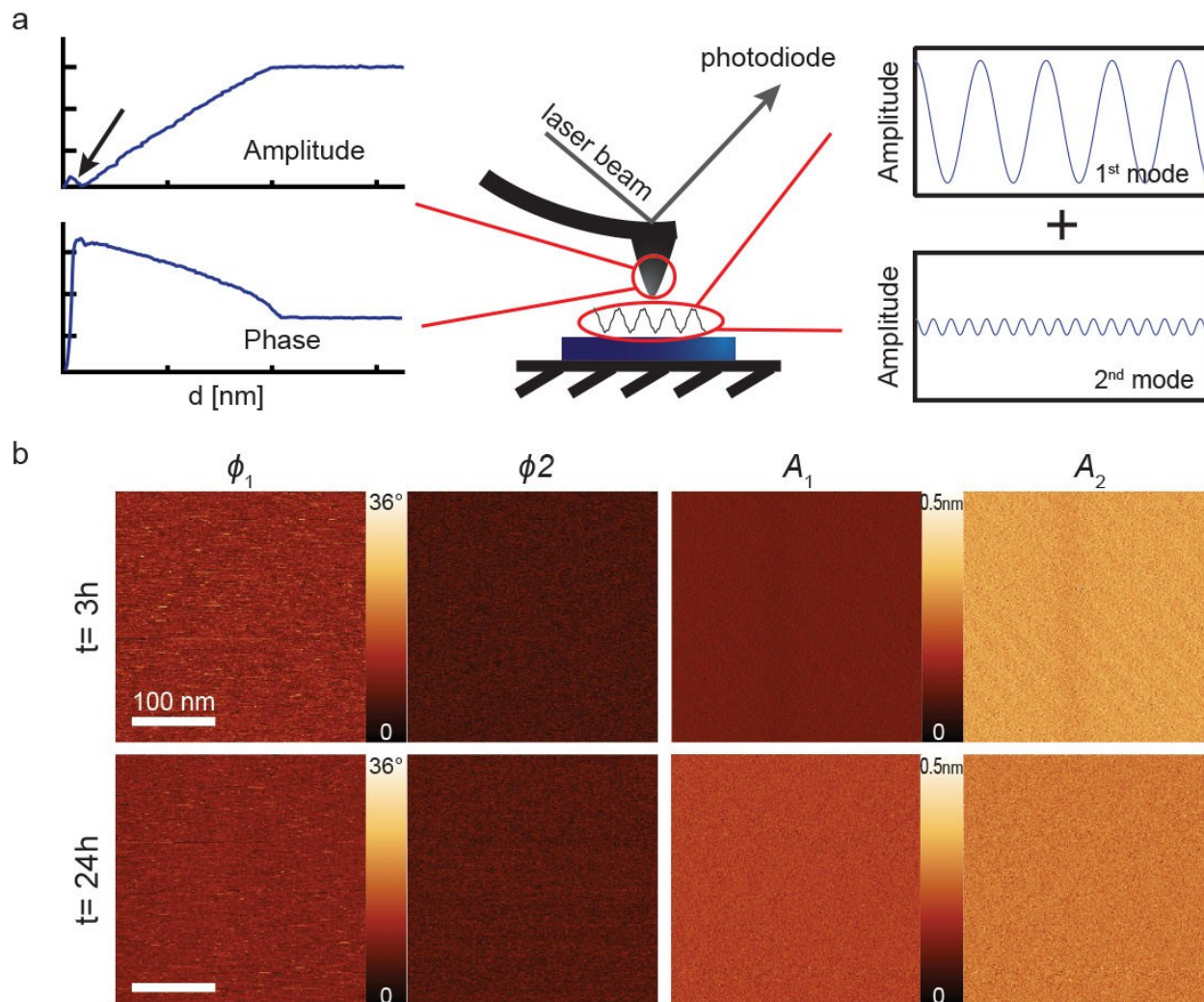


Figure S1. a) Amplitude A_1 for the bimodal SASS (Small Amplitude and Small Set-point) is chosen in the range of the values predicted by the amplitude distance curve as shown by the arrow. The cantilever is vibrated with the 1st and 2nd mode frequency of oscillation. b) SASS images consisted of Φ_1 (phase of mode 1), Φ_2 (phase of mode 1) A_1 (amplitude of mode 1) and A_2 (amplitude of mode 2) after 3h and 24 h of exposure to a controlled environment (Temperature at $23 \pm 2^\circ\text{C}$ and relative humidity (RH) $\sim 55 \pm 5\%$). High homogeneity and minimal differences between the 3 h and 24 h time can be observed.

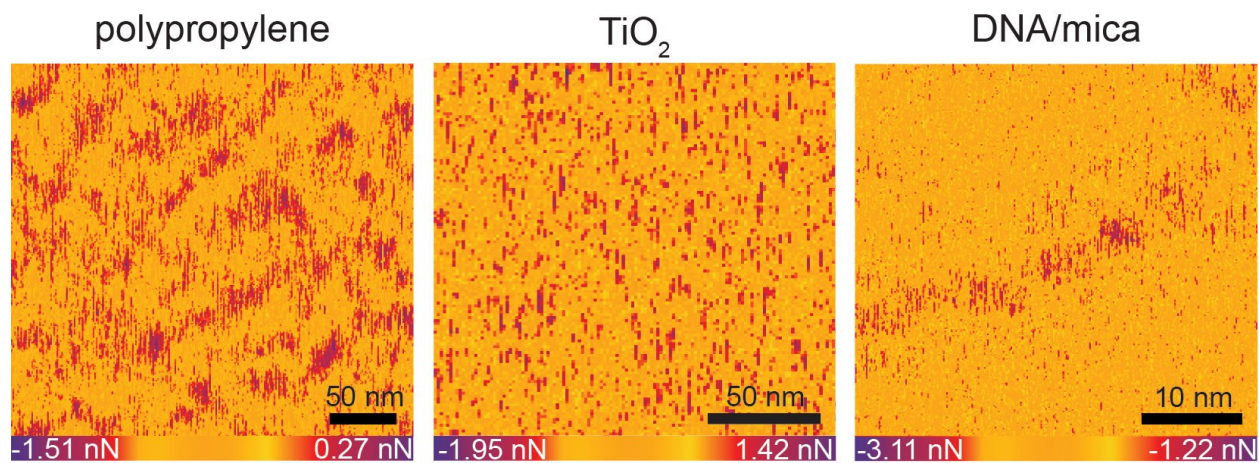


Figure S2. Additional force of adhesion map from a SASS bimodal experiment for three different samples including polypropylene, TiO₂, and DNA on mica substrate.