

Supplementary Materials for

Strength of Electronic Decoupling of Fullerene on an AuSi_x Layer formed on Au(111)

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Figure S1 STM topography of an atomically clean Au(111) surface after cyclic Ar⁺ sputtering for 10 min and annealing at 750 K for 15 min. This image was taken before depositing molecules. Measurement parameters: $V = 200$ mV and $I = 10$ pA.

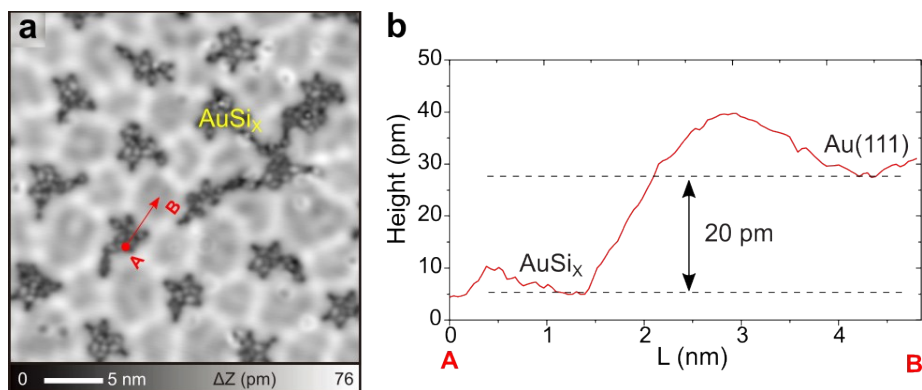


Figure S2 (a) STM topography of AuSi_x partially-covered on Au(111). Measurement parameters: $V = 100$ mV and $I = 20$ pA. (b) Line-profile taken along A and B in a.

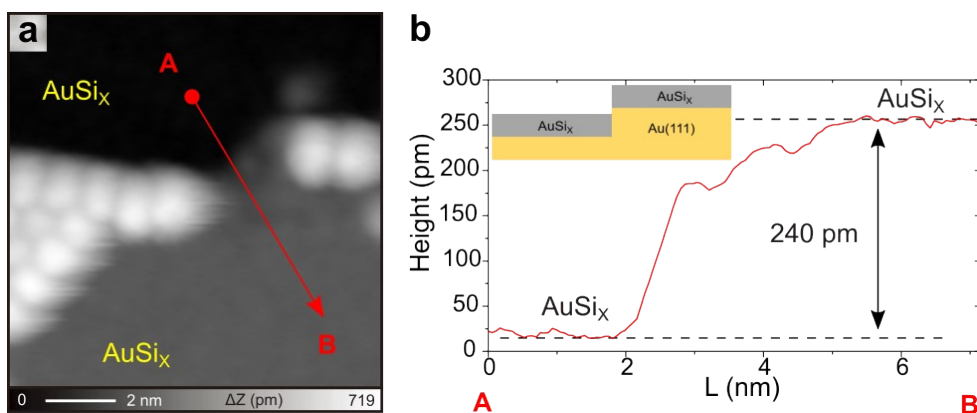


Figure S3 (a) STM topography of the terrace of AuSi_x layer with fullerene molecules. (b) A line-profile taken along the red line AB in (a). The apparent height of step is 240 pm, which is close to the step height of Au(111). Insert is the scheme of the terrace of AuSi_x layer.

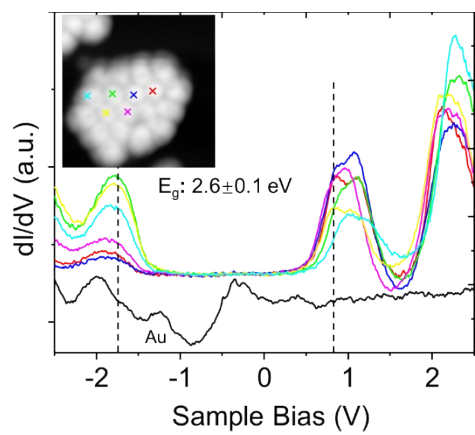


Figure S4 Six dI/dV curves taken above different C_{60} molecules on Au(111).