

Supporting Information

Dielectric Behavior of Self-Assembled Monolayers on Conducting Metal Oxides

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Figure S1. Chemical structure of tetradecylphosphoric acid (TDP).

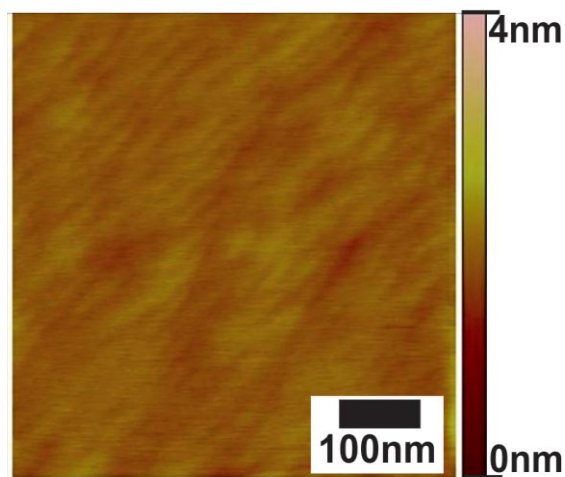


Figure S2. Contact mode AFM height image of a blank Nb-STO surface.

More detailed characterization of TDP SAMs on NbSTO has been reported before.^[1]

Figure S3 shows the elemental spectra after electrodeposition of Cu on the region of a Pt-patterned TDP SAM-covered Nb-STO sample as shown in Figures 2c,d and 3b. According to the XPS result, atomic concentrations of the elements in the region are: 68.5 % C, 26% O, 1.5% Cu and 4% Pt.

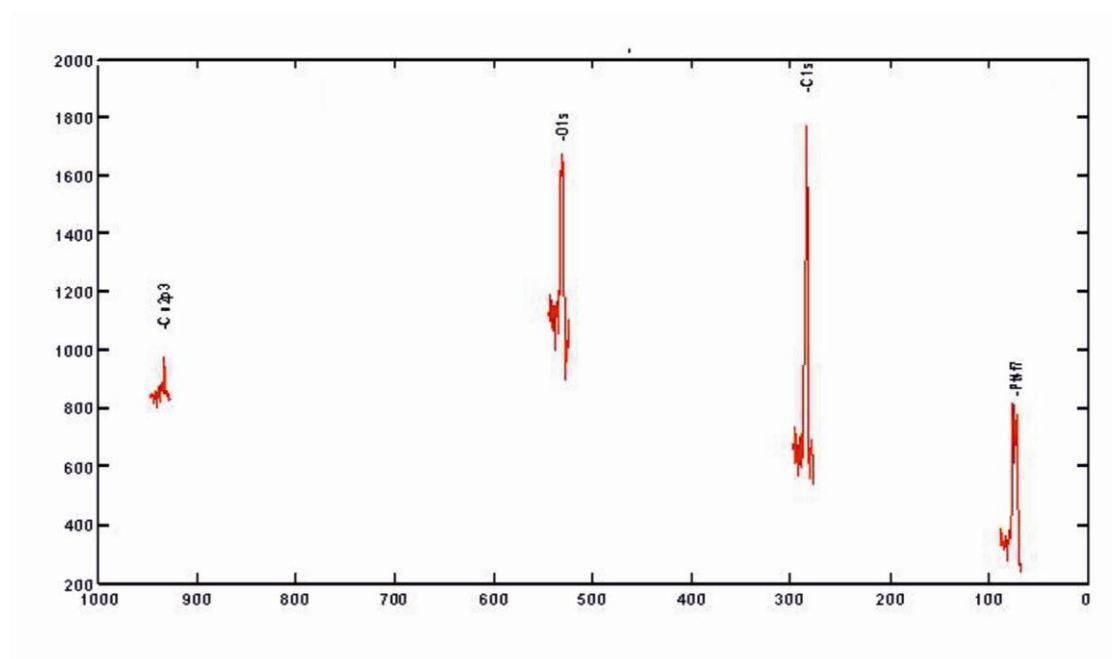


Figure S3. Elemental spectra of the area where electrodeposited Cu was seen on the Pt patterns deposited by PLD on TDP-covered Nb-STO.

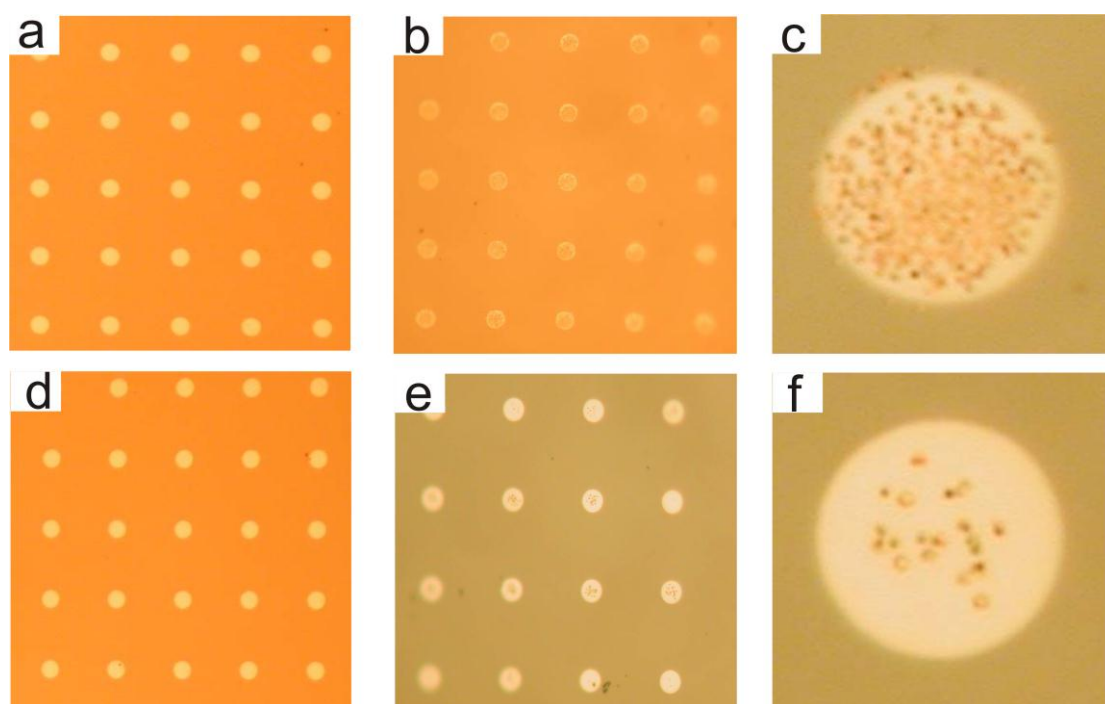


Figure S4. Optical images of Pt top contacts of (a) bare Nb-STO after stencil deposition by PLD with conditions for harsh landing. (b, c) Same sample after electrochemical Cu deposition, with the zoom-in to a region where Cu growth was seen (c). Optical images of Pt (d) top contacts of TDP SAM-modified Nb-STO after stencil deposition by PLD with conditions for harsh landing. (e,f) Same sample after electrochemical Cu deposition, with the zoom-in to a region where Cu growth was seen (f).

References

1. O. Yildirim, M. D. Yilmaz, D. N. Reinhoudt, D. H. A. Blank, G. Rijnders, J. Huskens, *Langmuir* **2011**, *27*, 9890-9894.