

# Supporting Information for “Nanoscale structure and morphology of atomic layer deposition platinum on SrTiO<sub>3</sub> (001)”

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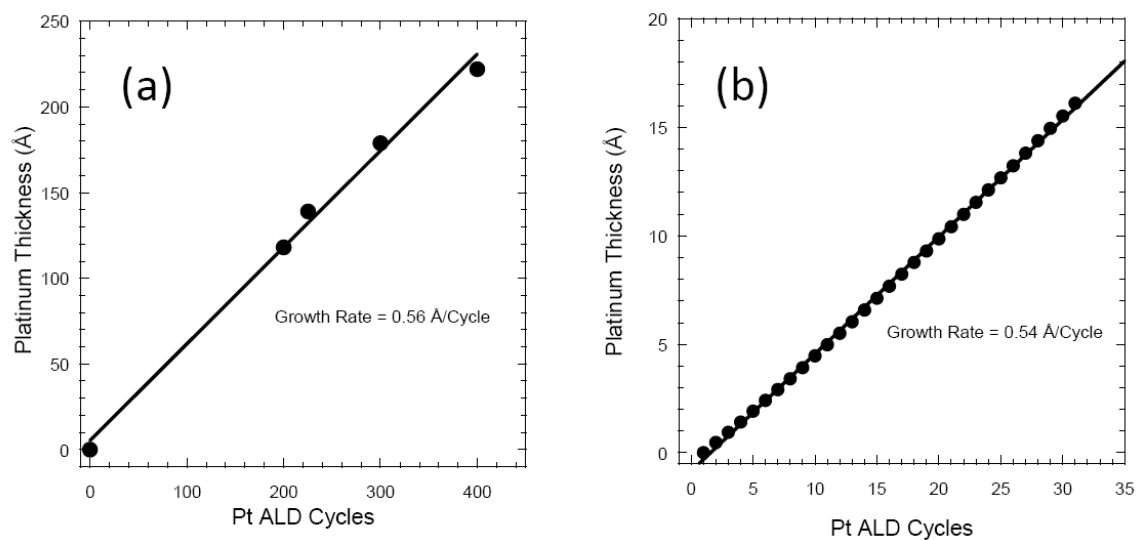
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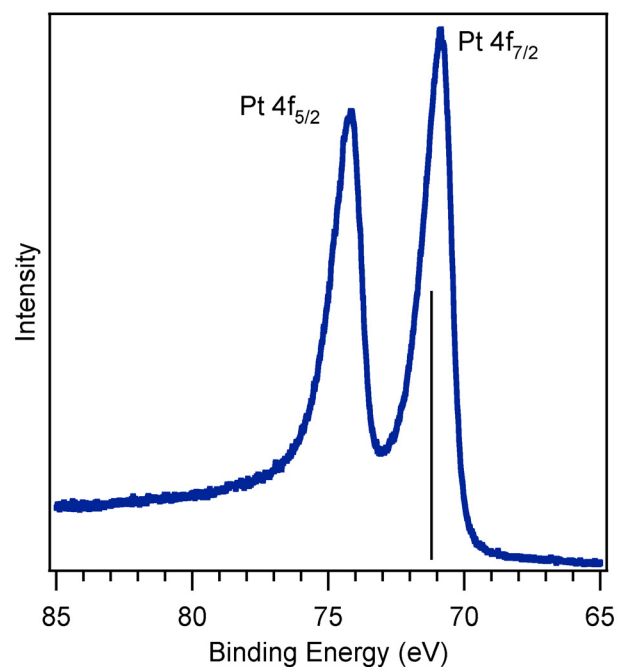
## Contents

Figure S1 Ellipsometry and quartz crystal microbalance measurements of Pt ALD.

Figure S2 X-ray photoelectron spectroscopy data for Pt ALD on SrTiO<sub>3</sub> (001).



**Figure S1.** (a) Ellipsometry measurements of ALD Pt films prepared on silicon substrates. (b) *in situ* quartz crystal microbalance measurements of Pt ALD recorded after the initial nucleation period. Both measurements yield a growth rate of approximately 0.5 Å/cycle for Pt ALD, which is consistent with the steady-state regime after coalescence of the Pt film.



**Figure S2.** X-ray photoelectron spectroscopy data for 40 Pt ALD cycles on SrTiO<sub>3</sub> (001). The line marks the Pt 4f<sub>7/2</sub> line position at 71.2 eV for metallic platinum. The approximate peak position for the Pt ALD sample is 71.0 eV. For completely oxidized platinum, the peak position would be shifted higher in energy by ~3 eV. Reference: Moulder, J. F.; Stickle, W. F.; Sobol, P. E.; Bomben, K. D.; *Handbook of X-ray photoelectron spectroscopy*. Perkin-Elmer Corporation: Eden Prairie, Minnesota, 1992.