Electronic Supplementary Information

Physical Insights into Au Growth on Surface of $LaAlO_3/SrTiO_3$ Heterointerface

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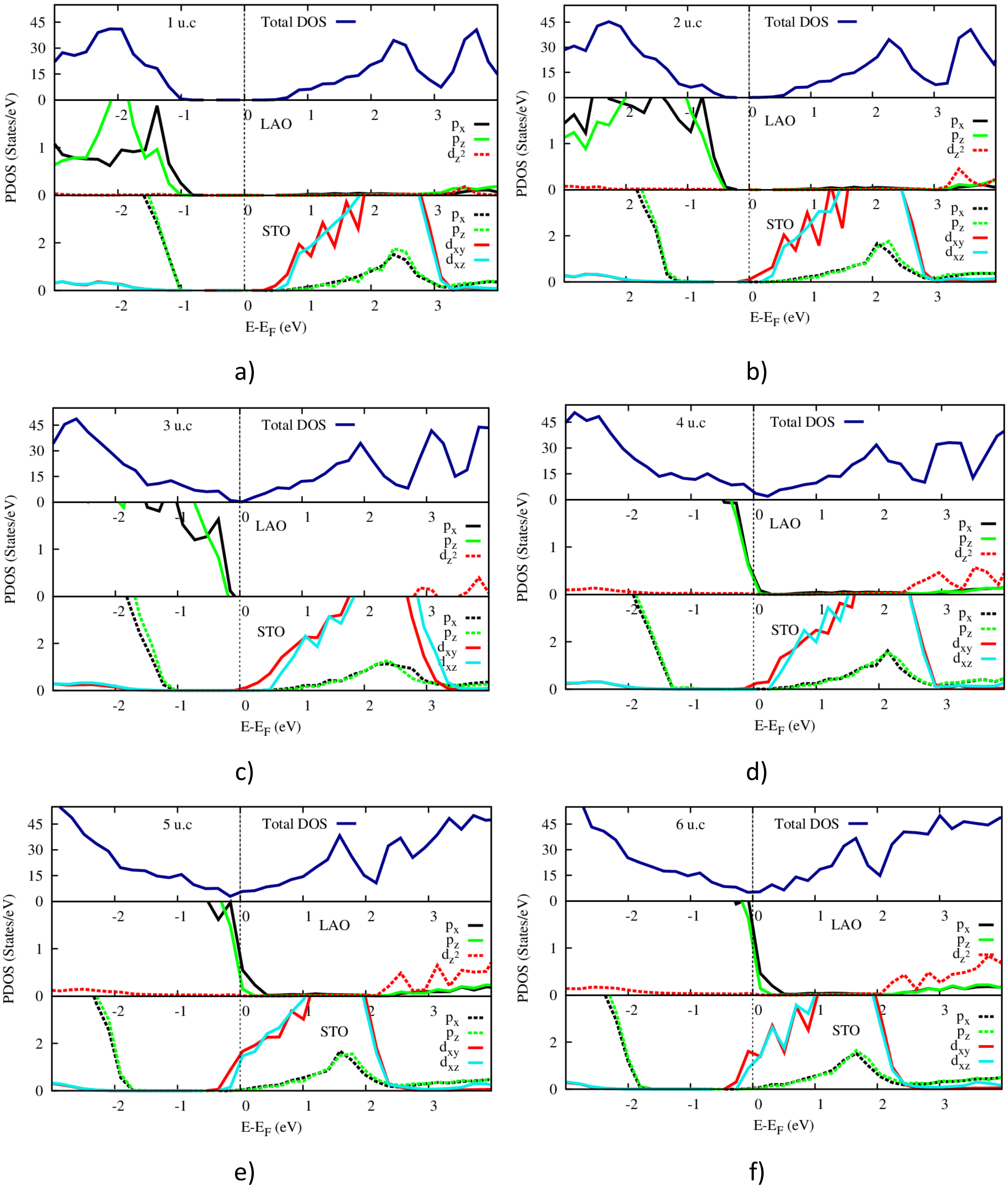

a) b) c) d) e) f)

Figure S. The orbital-projected density of states (PDOS) of the $(LAO)_m/(STO)_6$ system, *m* = 1 – 6 layers. Figures a) – f) correspond to the heterointerface with the LAO film thickness of 1 to 6 unit cells. The bandgap value is 1.41, 0.65, and 0.25 eV for the LAO film thickness of 1 to 3 unit cells, and that is 0 eV for the LAO film thickness ≥ 4 unit cells.