

Supporting information

Beyond Two-color Selectivity: Area Selective Deposition on Multi-oxide Surfaces Using Small Molecules Inhibitors

Benjamín Sanhueza¹, Marc J. M. Merckx¹, Wilhelmus M. M. Kessels¹, Tania E. Sandoval²,
Adriaan J. M. Mackus¹

1. Department of Applied Physics and Science Education, Eindhoven University of Technology, Eindhoven 5600 MB, The Netherlands

2. Department of Chemical and Environmental Engineering, Universidad Técnica Federico Santa María, 8940000 Santiago, Chile

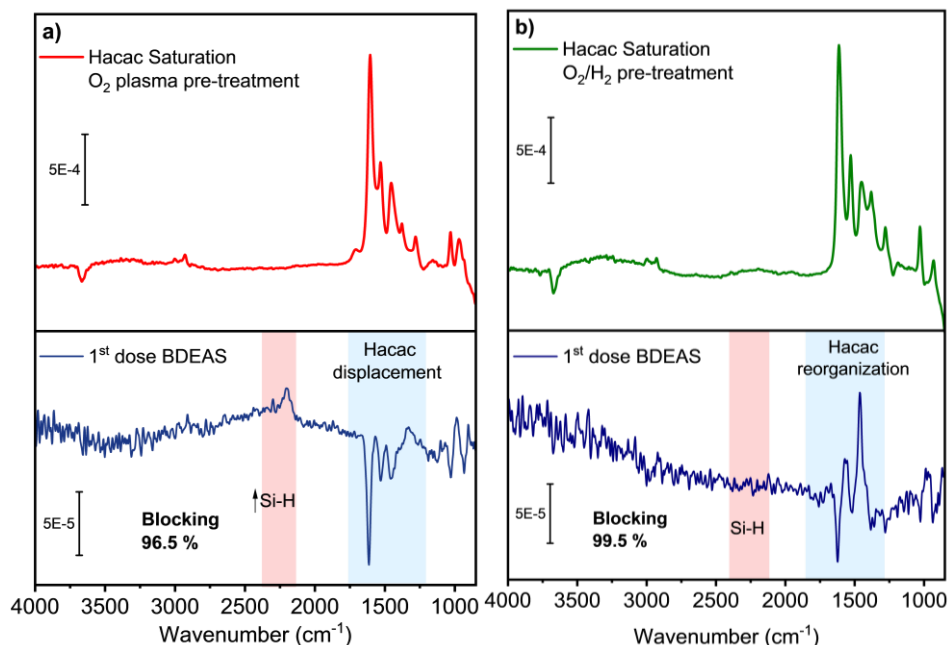


Figure S1: *In situ* RAIRS spectra of acetylacetone (Hacac) adsorption on ZrO_2 and blocking of the bis(diethylamino)silane (BDEAS) precursor under different pretreatment conditions. The pretreatment spectra—(a) 1.5 min O_2 plasma and (b) 1.5 min O_2 plasma followed by 1.5 min H_2 plasma—were used as the background. The BDEAS spectrum was obtained using the Hacac-saturated surface spectrum as a reference.

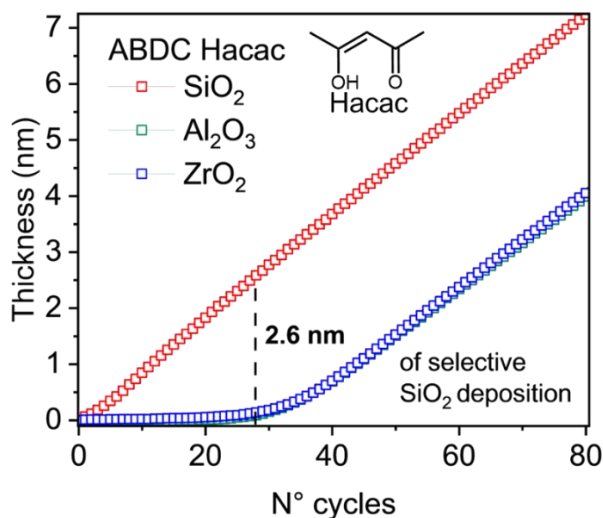


Figure S2: Nucleation curves of SiO_2 AS-ALD on SiO_2 , Al_2O_3 and ZrO_2 using Hacac as inhibitor, obtained by *in situ* ellipsometry. Note that the ZrO_2 and Al_2O_3 curves overlap in the graph due to their very similar nucleation.