

Figure 1. The principle of area-selective ALD with patterned SAMs. a) A patterned SAM guides the adsorption of precursor to areas without SAM. b) Resulting film is formed only on areas without SAM. c) SAM can be removed from the surface for possible further processing of the surface

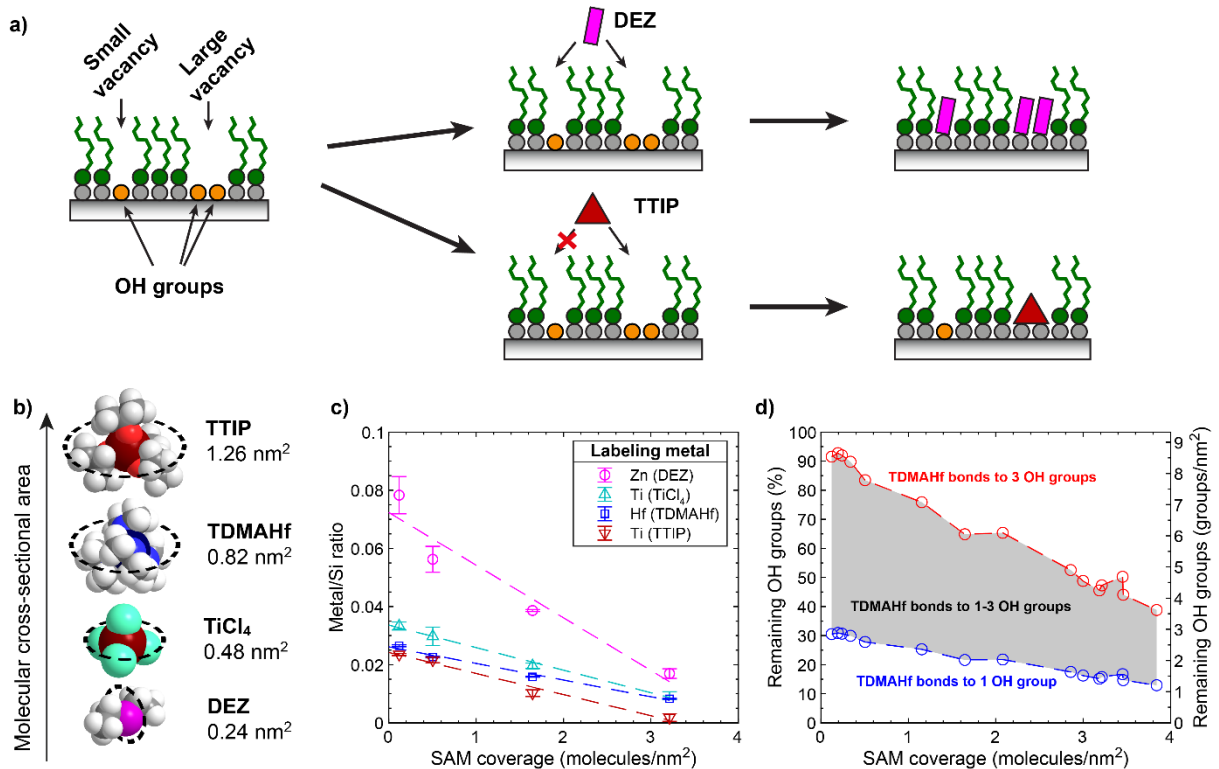


Figure 2. Detecting vacancies in octyltrichlorosilane SAMs. a) Different sized precursors find differently room to adsorb to the remaining vacancies. b) Molecular cross-sectional areas of some common ALD reactants. c) Relative adsorption of organometal precursors on surfaces covered with different SAM areal coverages. d) Estimation of accessible hydroxyl groups of SAM surfaces as function of SAM areal coverage.

Reference:

[1] S. Lepikko, Y. Morais Jaques, M. Junaid, M. Backholm, J. Lahtinen, J. Julin, V. Jokinen, T. Sajavaara, M. Sammalkorpi, A. S. Foster, R. H. A. Ras, Droplet slipperiness despite surface heterogeneity at molecular scale, *Nature Chemistry* (2024), <https://doi.org/10.1038/s41557-023-01346-3>.