

Figure 1: Saturation curves of the growth per cycle (GPC) for TaS<sub>x</sub> process as function of a) precursor dosing time and b) plasma time.

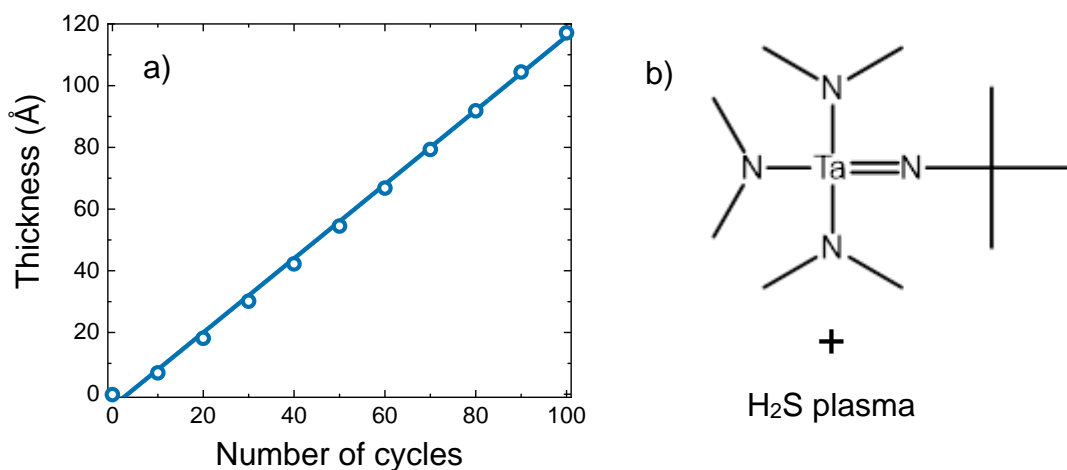


Figure 2: a) Thickness as function of the number of cycles, showing linear growth of the TaS<sub>x</sub> film on thermal SiO<sub>2</sub>, measured by in situ spectroscopic ellipsometry. The linear fit shows that the growth is linear after a slight nucleation delay. b) TBTDMT precursor and H<sub>2</sub>S plasma used in the ALD process.

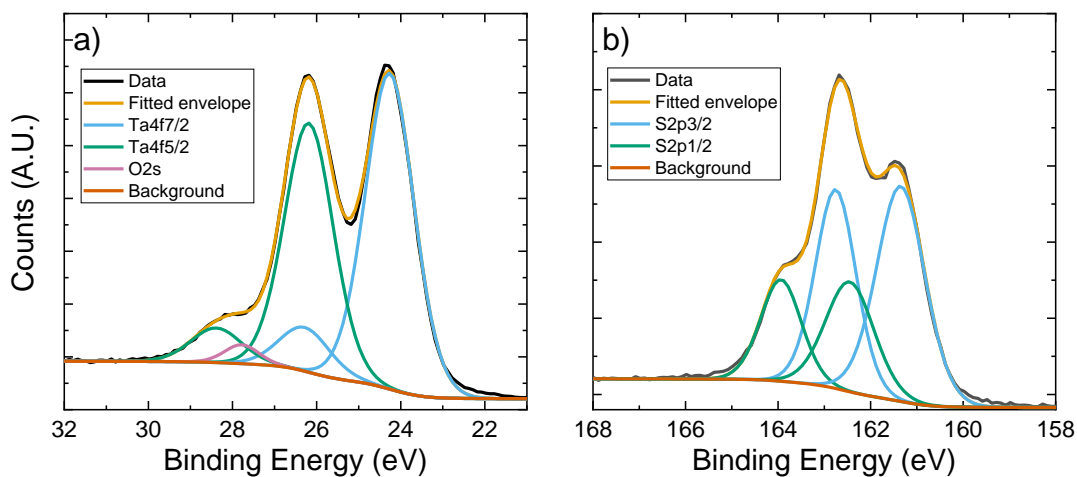


Figure 3: a) XPS Ta4f spectra and b) XPS S2p spectra, revealing a Ta:S ratio of 1:2.9.