

Supplemental material

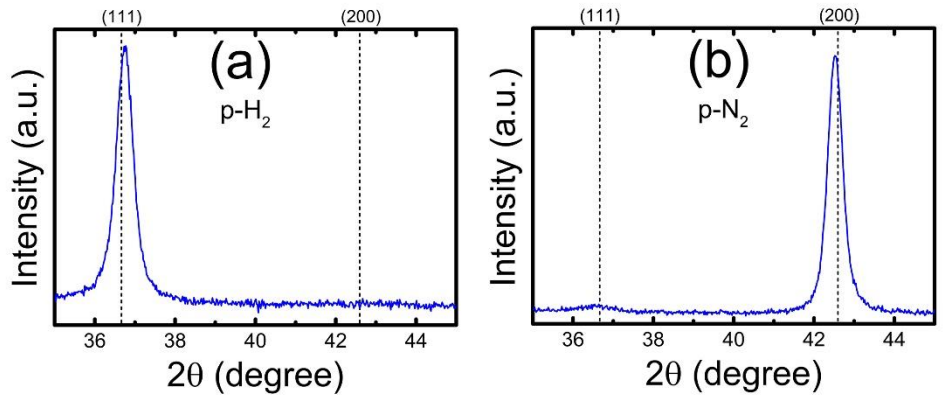
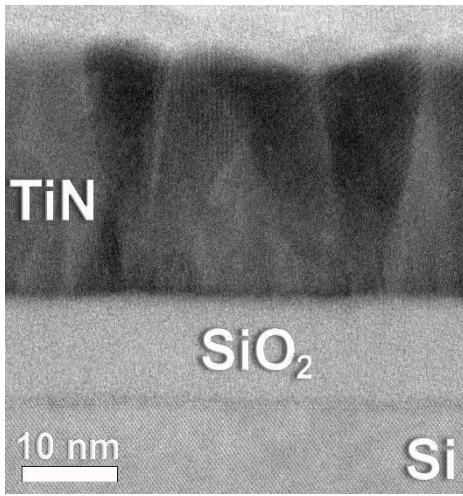


Figure 1 – Micrograph acquired by bright field (BF) scanning transmission electron microscopy (STEM) for TiN films deposited from TDMAT and N₂/Ar plasma mixture

Figure 2 – XRD spectra collected by (a) grazing angle and (b) standard $\theta/2\theta$ techniques for TiN films deposited from TDMAT and N₂/Ar plasma mixture

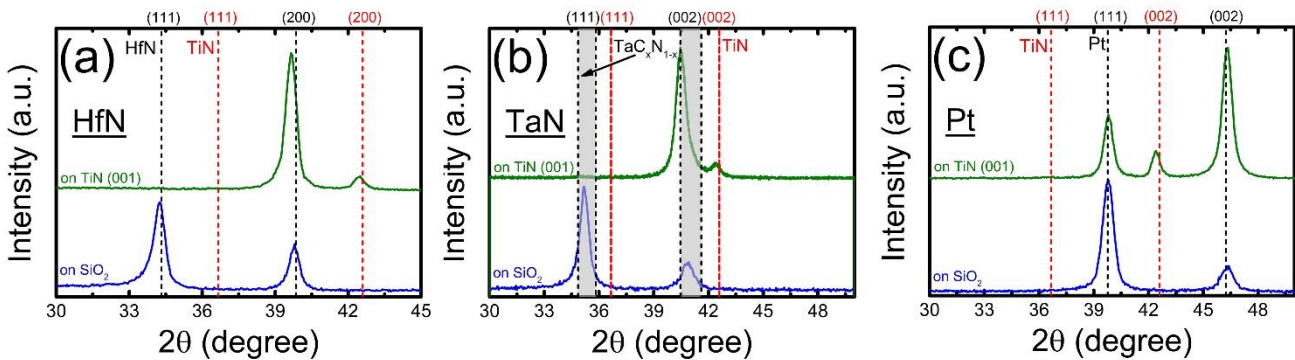


Figure 3 – XRD spectra collected at the $\theta/2\theta$ mode for (a) HfN, (b) TaN and (c) Pt PEALD films deposited on either (001) oriented TiN "seed" layer (25 nm) or SiO₂ (10 nm)

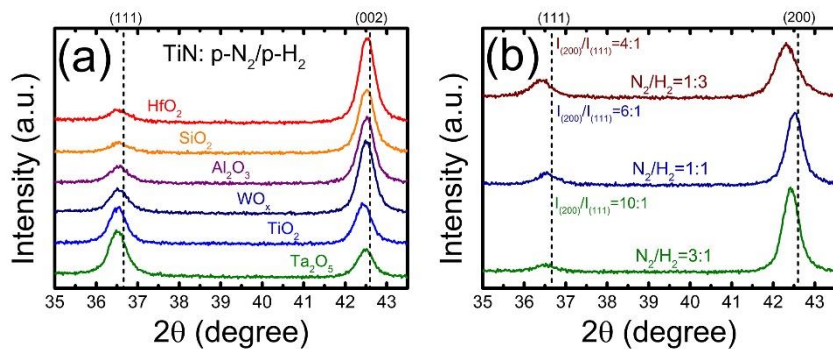


Figure 4 – XRD spectra collected at the $\theta/2\theta$ mode for TiN films deposited using N₂/H₂ gas mixture on (a) different oxides (N₂/H₂=1:1) and (b) on SiO₂ by different N₂/H₂ gas ratio

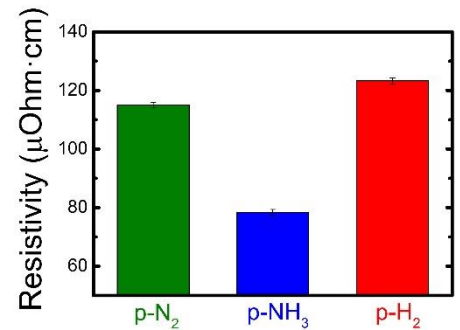


Figure 5 – Resistivity of 30 nm thick TiN films deposited using different plasma chemistry