Supplemental material for abstract #3538:

“Structure and properties of titanium nitride layers grown by plasma enhanced atomic layer deposition on different substrates”

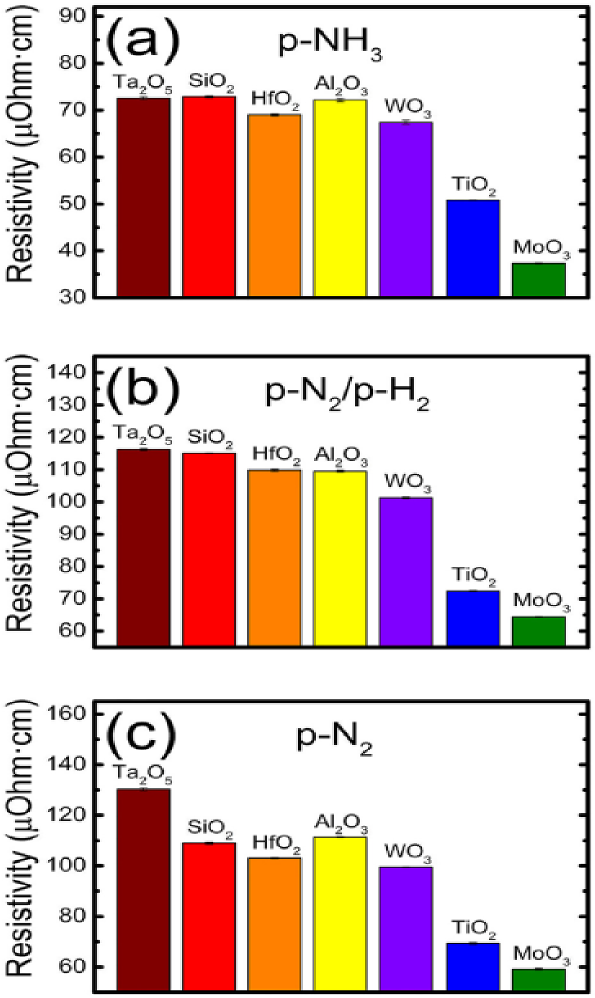

FIG.1. Resistivity of 30 nm thick TiN films deposited on various ~ 10 nm thick interfacial layers using: (a) NH_3, (b) N_2/H_2, and (c) N_2 plasma gases

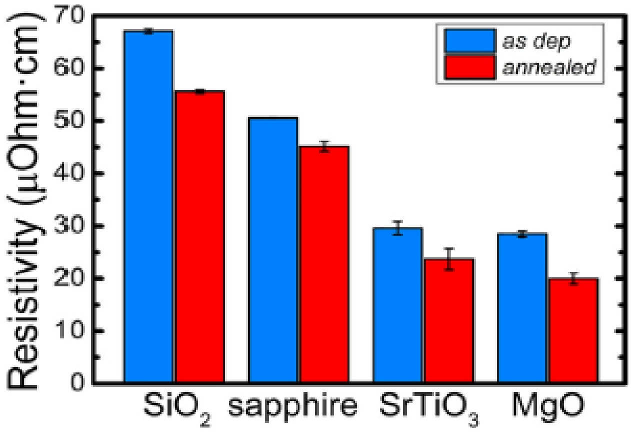

FIG. 3. Resistivity of TiN films (57 nm) grown on various substrates: sapphire (0001), $SrTiO_3$ (001), MgO (001), and SiO_2/Si before and after postdeposition annealing (650 °C/vacuum/1 h)

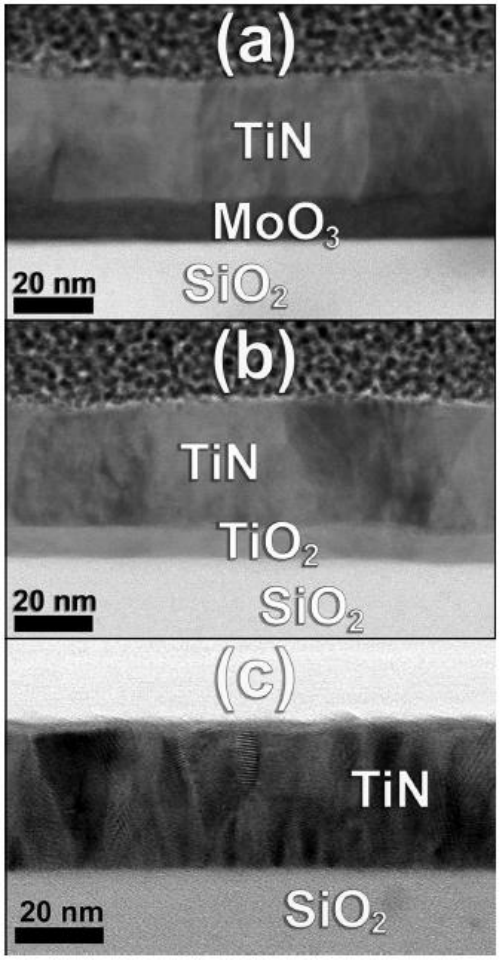

FIG. 2. Bright-field STEM micrographs acquired for (a) TiN(30 nm)/ MoO_3(11 nm)/SiO_2/Si, (b) TiN(30 nm)/TiO_2(10 nm)/SiO2/Si, and (c) TiN (30 nm)/SiO_2/Si samples

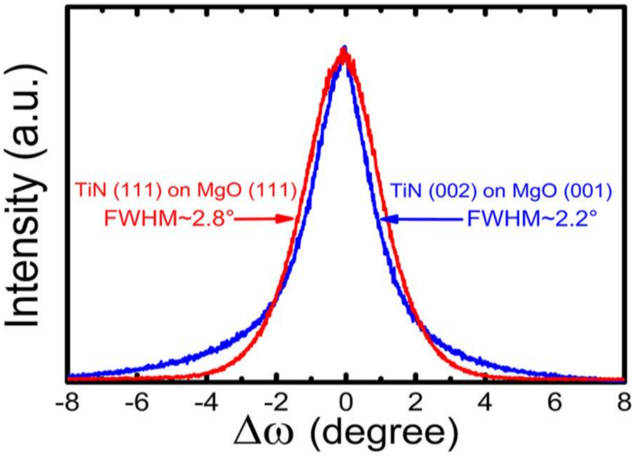

FIG. 4. XRD spectra obtained by the rocking curve technique for TiN (45 nm) films simultaneously deposited on either (111) or (001) oriented MgO single crystal substrate. The rocking curve spectra were collected for either TiN (111) or (002) reflection, respectively