

Fig. 1. (a) RBS spectra of VN films with Ar to  $N_2$  ratio and post deposition annealing and (b) resistivities of VN films deposited at  $300^\circ\text{C}$  with different Ar to  $N_2$  Ratio.

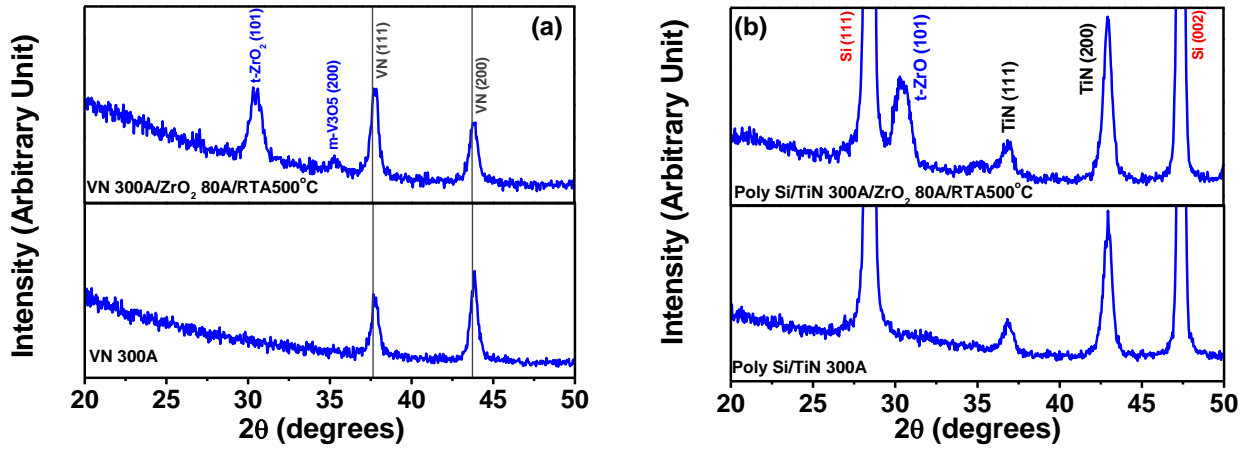


Fig. 2. XRD patterns of (a) VN and VN/ZrO<sub>2</sub> films and (b) TiN and TiN/ZrO<sub>2</sub> films, respectively.