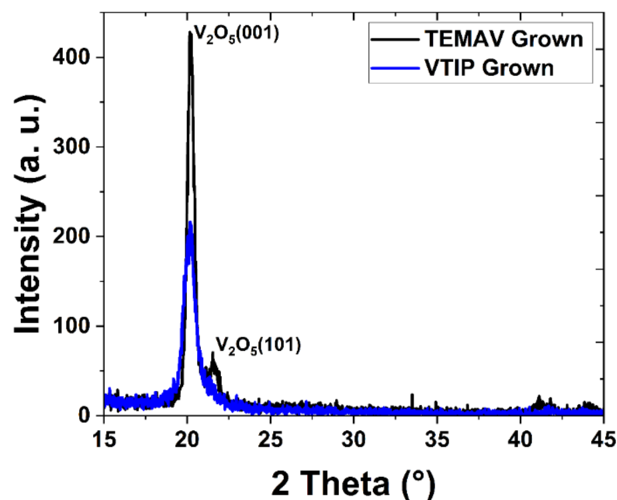

Figure 1: Comparing film crystallinity of the VO_X thin films grown by VTIP and TEMAV metal precursor at 150 °C substrate temperature in an HCP-ALD reactor.

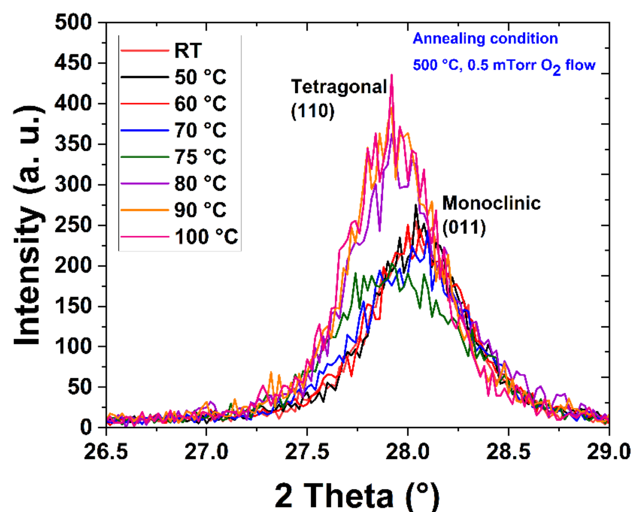

Figure 2: Temperature dependent GIXRD scan of VTIP precursor grown and thermal *ex-situ* annealed VO_2 film. The temperature scan is performed from room temperature (RT) to 100 °C.

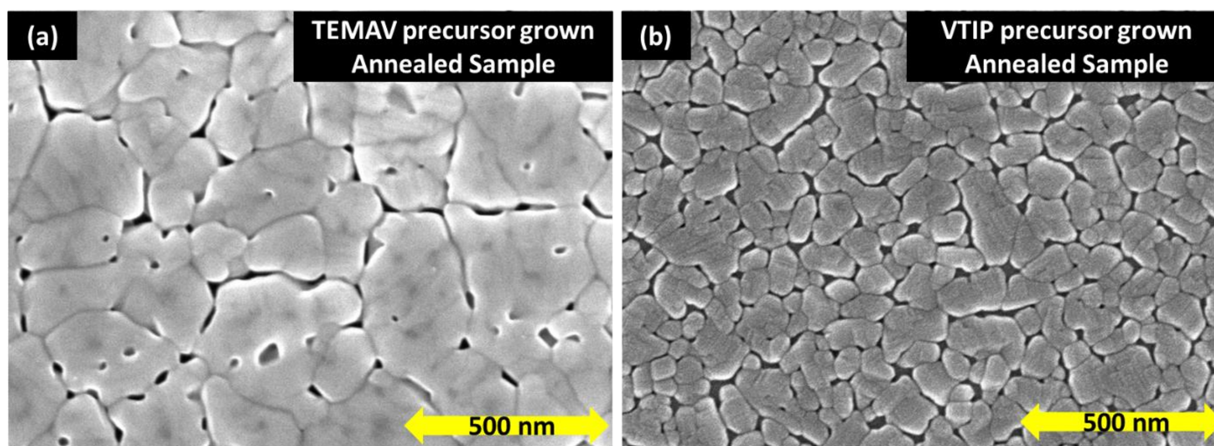

Figure 3: HR-SEM images of the annealed VO_X samples. The following samples were annealed: (a) TEMAV metal precursor and (b) VTIP precursor grown film on Si (100). The annealing condition is 500 °C and 0.5 mTorr O_2 flow.