

Figure 1. Growth per cycle of ALD Nb<sub>2</sub>O<sub>5</sub> on TiN as a function of *UP-Nb* exposure time

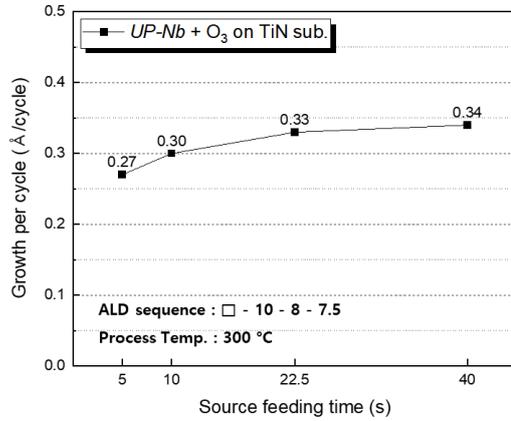


Figure 2. (a) Nb 3d XPS spectra and (b) Step coverage of ALD Nb<sub>2</sub>O<sub>5</sub> using *UP-Nb* on 20:1 hole patterns.

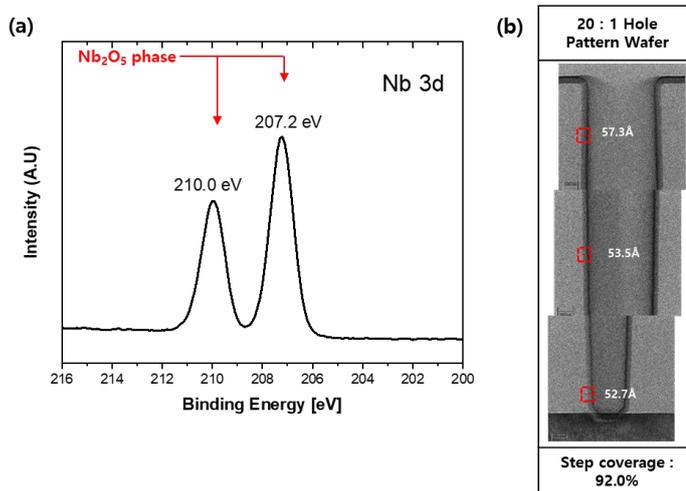


Figure 3. (a) Film thickness and (b) Selectivity of ALD Nb<sub>2</sub>O<sub>5</sub> on TiN and SiN as a function of the number of ALD cycles using *UP-Nb*.

