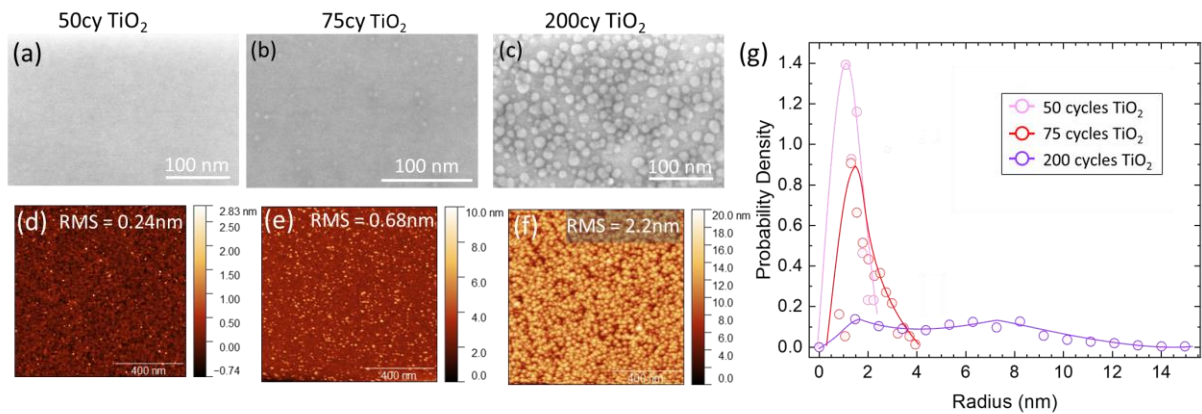


**Figure 1:** (a) Growth curve from RBS (Ti aerial density on left y-axis and equivalent thickness on right y-axis) and (b) surface energy (determined via contact angle measurements with water and diiodomethane) of TiO<sub>2</sub> on SiO<sub>2</sub> (red) and DMA-TMS passivated SiO<sub>2</sub> (purple) at 150 °C. Results demonstrate ~100 cycle selectivity window corresponding to ~4 nm TiO<sub>2</sub> on desired growth surface. Layer closure occurs much more rapidly on SiO<sub>2</sub> than on DMA-TMS passivated SiO<sub>2</sub>, consistent with selectivity window.



**Figure 2:** SEM (top) and AFM (bottom) images of (a), (d) 50 cycles, (b), (e), 75 cycles, and (c), (f) 200 cycles TiO<sub>2</sub> on DMA-TMS passivated SiO<sub>2</sub>. The increase in nuclei size and density is apparent from both SEM and AFM images on the passivated surface. (g) Particle size distributions for various TiO<sub>2</sub> cycle numbers determined from SEM image analysis.