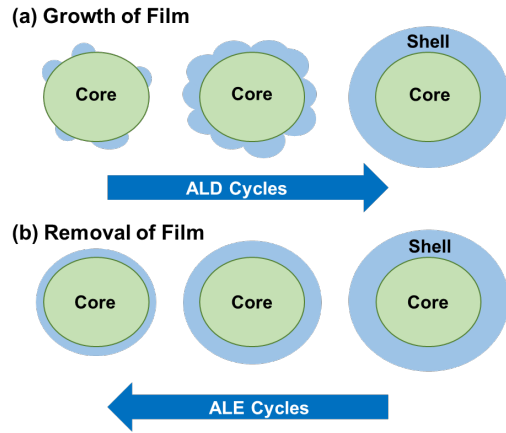
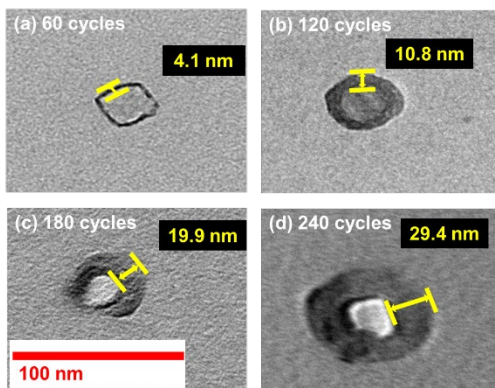


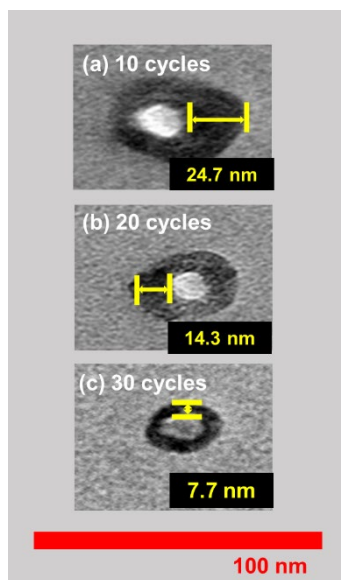
## Deposition and Etchback Approach for Ultrathin ZrO<sub>2</sub> Coatings on TiO<sub>2</sub>/ZrO<sub>2</sub> Core/Shell Nanoparticles



**Figure 1.** (a) ALD growth on core nanoparticle. (b) ALE removal of shell on core nanoparticle.



**Figure 2.** TEM images of TiO<sub>2</sub>/ZrO<sub>2</sub> core/shell nanoparticles after: (a) 60; (b) 120; (c) 180; and (d) 240 cycles of ZrO<sub>2</sub> ALD.



**Figure 3.** TEM images of TiO<sub>2</sub>/ZrO<sub>2</sub> core/shell nanoparticles after: (a) 10; (b) 20; and (c) 30 cycles of ZrO<sub>2</sub> ALE.