

Fig. 1  $HfO_2$  and  $SiO_2$  thicknesses as a function of ALD cycle by ALD at 300 °C using  $H_2O$  gas and TDMAHf and TDMAS, respectively.



Fig. 2 (HfO<sub>2</sub>)/(SiO<sub>2</sub>) (2/1) nanolaminate thicknesses as a function of ALD cycle by ALD with H<sub>2</sub>O and PE-ALD with O<sub>2</sub> plasma at 300 °C.