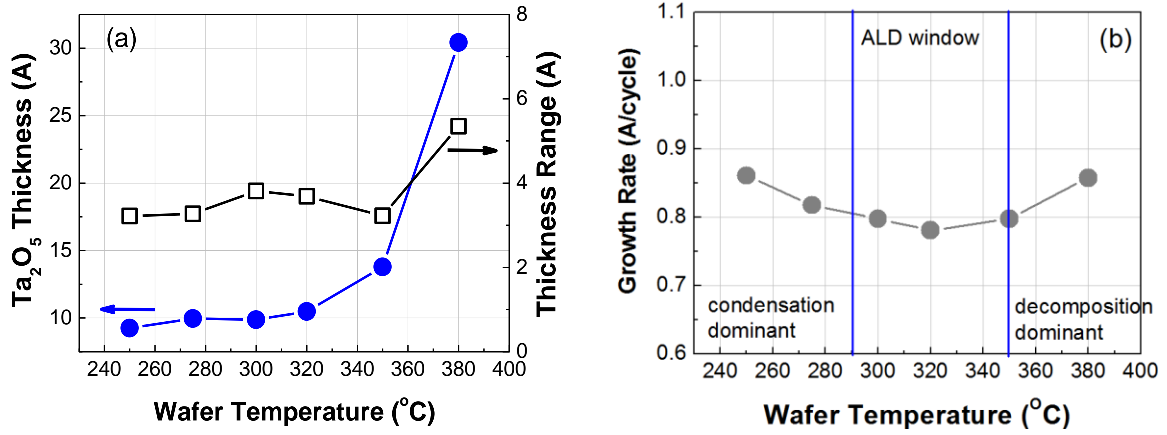

Fig. 1. (a) Thermal decomposition test of TBTEMT precursor without reactant and (b) deposition temperature dependence of the growth rate of ALD-Ta_2O_5 films.

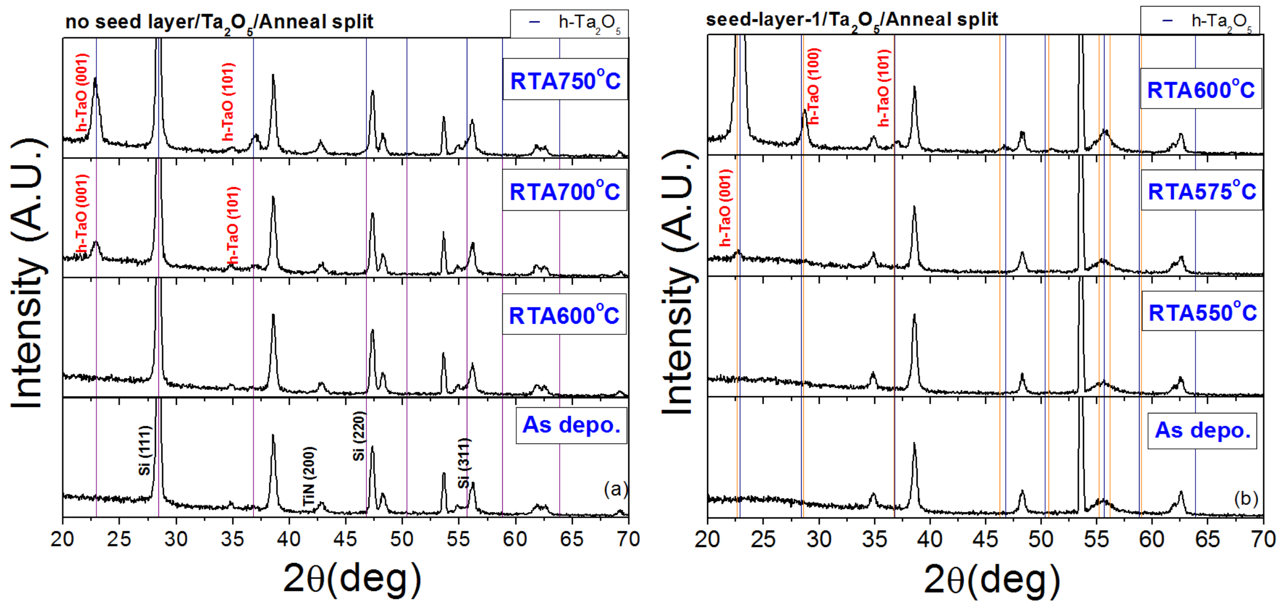

Fig. 2. XRD patterns of ALD-grown Ta_2O_5 films on TiN electrode: (a) Ta_2O_5 only and (b) Ta_2O_5 on a seed-layer.

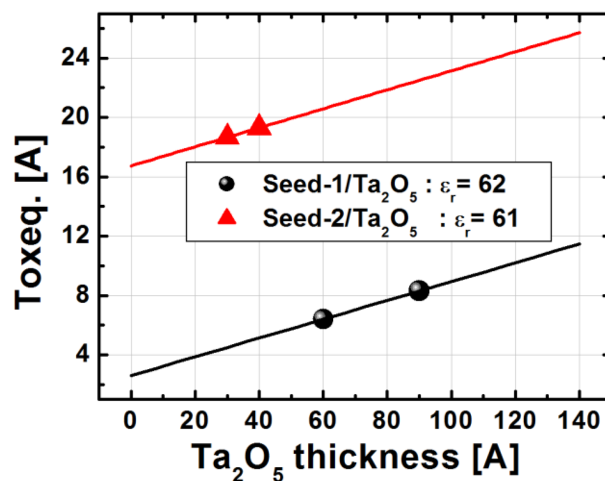

Fig. 3. Dependence of Toxeq. On the Ta_2O_5 film thickness for TIT-seed-layer-1/Ta_2O_5 and RIS-seed-layer-2/Ta_2O_5 capacitor.