Abstract

In this work, high-dielectric-constant thin film was used for the application of memory device. The device structure is Al/CeO2/TaN. The resistance switching of the memory devices were studied by using different annealing temperature for CeO2 films. The annealing temperature ranges from 400 to 700 oC. The impact of annealing temperature on the breakdown electric field and device reliability will be examined in this work.