## Diverse resistive switching behaviors of AIN thin films with different orientations

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As shown in the Figure S1, the endurance of the amorphous-AIN structure reaches 100 cycles and the retention time reaches 1000000 s (~ 11.6 days). The results indicate the amorphous sample has a remarkable stability and performance.

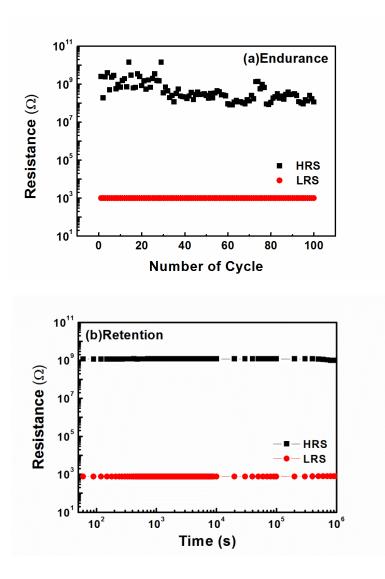


Figure S1. (a) Endurance and (b) retention tests of amorphous sample. Note that all the data

were measured @ 0.1 V.