



Supplementary materials

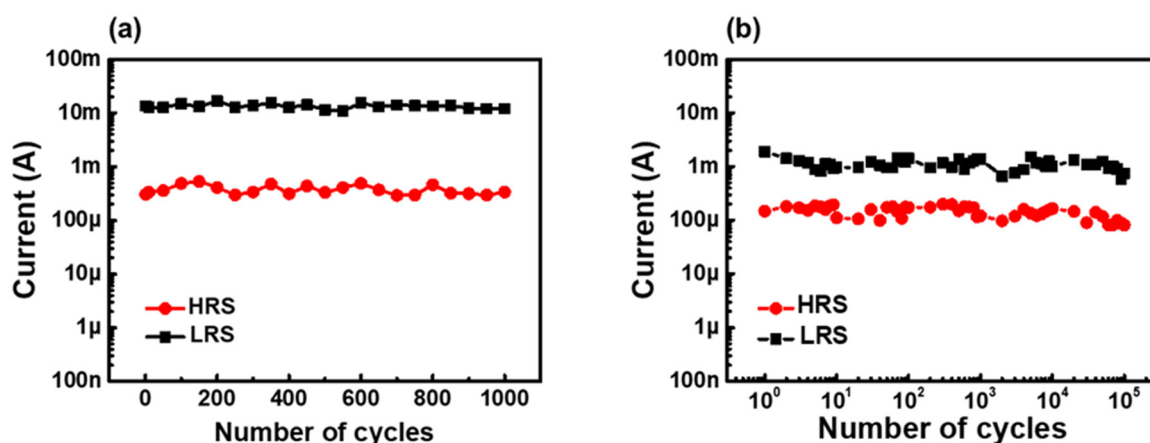
# Reset first resistive switching in $\text{Ni}_{1-x}\text{O}$ thin films as charge transfer insulator deposited by reactive RF magnetron sputtering

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**Figure S1.** Endurance characteristics of  $\text{Ni}_{1-x}\text{O}$  bipolar RS device with (a) DC cycles measured with  $V_{\text{read}}$  of  $\pm 0.25$  V, and (b) AC pulses cycles measured with a set pulse ( $V_{\text{set}}$ ) of  $-0.95$  V with 180 ns, a reset pulse ( $V_{\text{reset}}$ ) of 1.2 V with 180 ns and  $V_{\text{read}}$  of 0.3 V.