

- [1] XU, Kandli, WANG, Tianyu, YU, Jiajie, *et al.* Fluorite-structured antiferroelectric hafnium-zirconium oxide for emerging nonvolatile memory and neuromorphic-computing applications. *Applied Physics Reviews*, 2024, vol. 11, no 2.
- [2] YANG, Yuzhe, XU, Wenjia, HUANG, Dapeng, *et al.* A comprehensive study on the sandwich stacking structures of antiferroelectric/ferroelectric doped hafnium oxide. *Applied Physics Letters*, 2025, vol. 126, no 2.

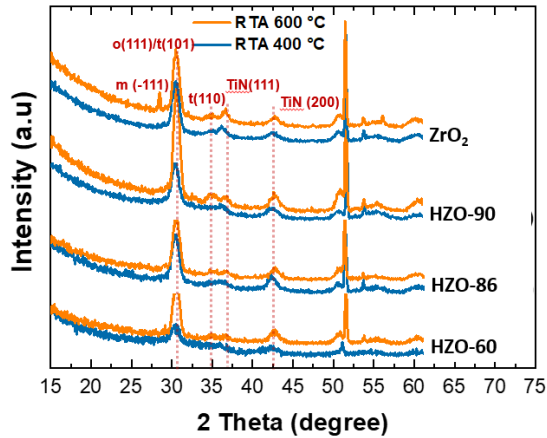


Fig. 1. XRD patterns of 8 nm HZO thin films with varying  $ZrO_2$  content under different annealing temperatures (400 °C and 600 °C).

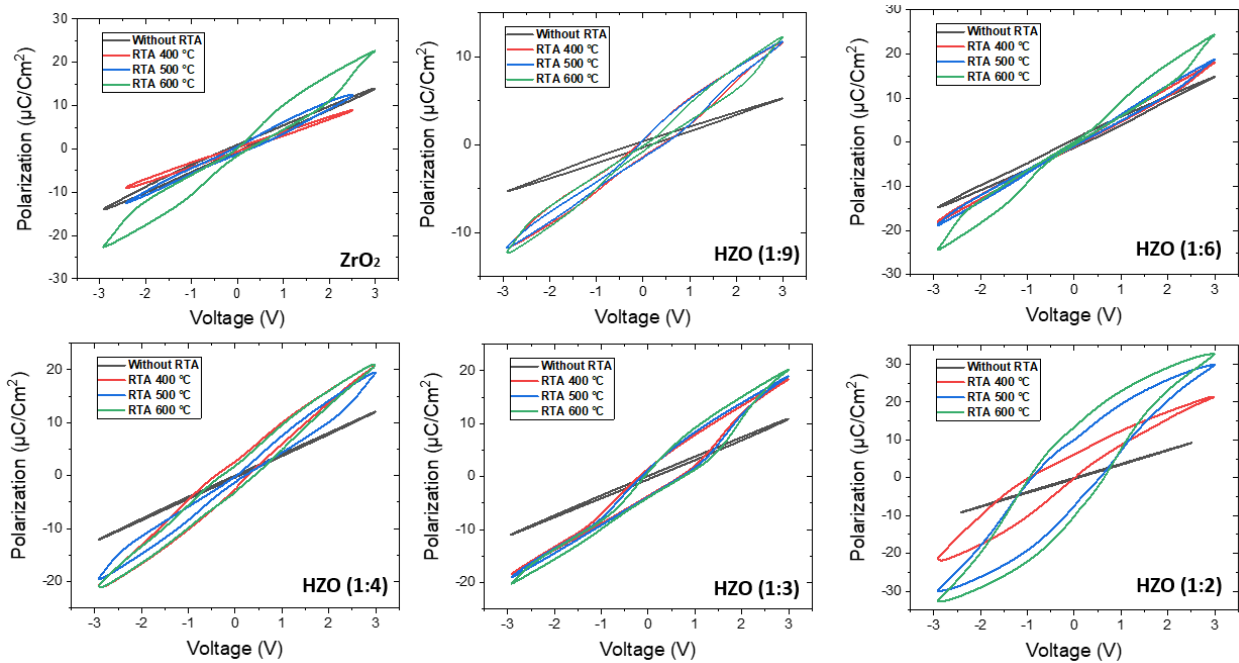


Fig. 2. Polarization–electric field hysteresis response of HZO films (8 nm) as-deposited and after rapid thermal annealing at different temperatures.