Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supporting documents for

Mixed-phase bismuth ferrite thin films by chemical solution deposition

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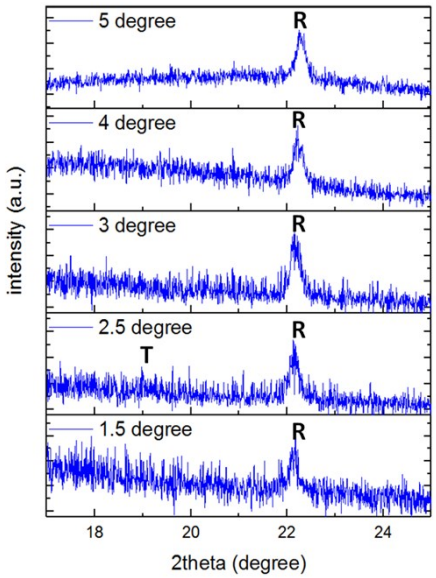

Figure S1 Grazing angle XRD of BFO//LAO thin film

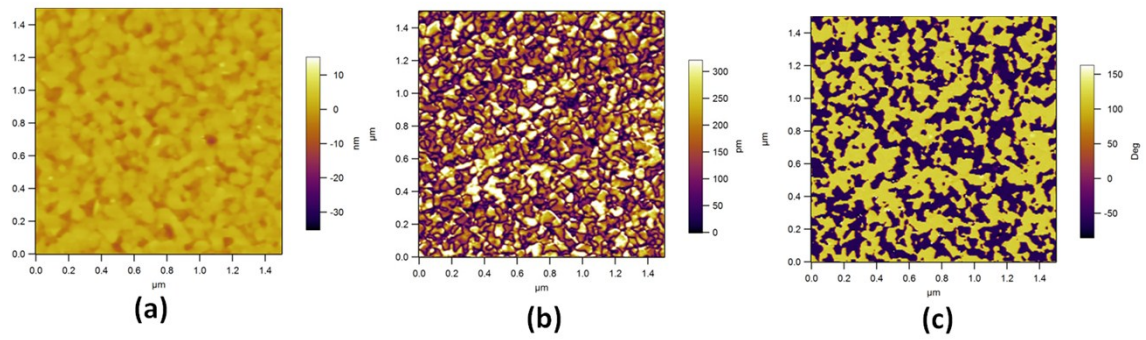

Figure S2 (a) Topography; (b) PFM amplitude and (c)phase images(1.5 µm × 1.5 µm) of mixed phase BFO//LAO thin films

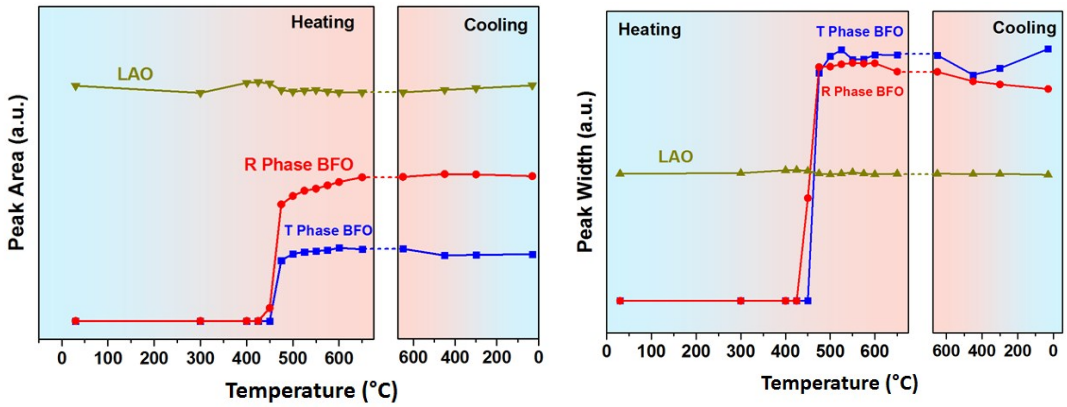

Figure S3. BFO T' and R' phase XRD peak area (a) and peak width (b) as function of heating and cooling temperature. XRD peaks from LAO substrate are used as reference.

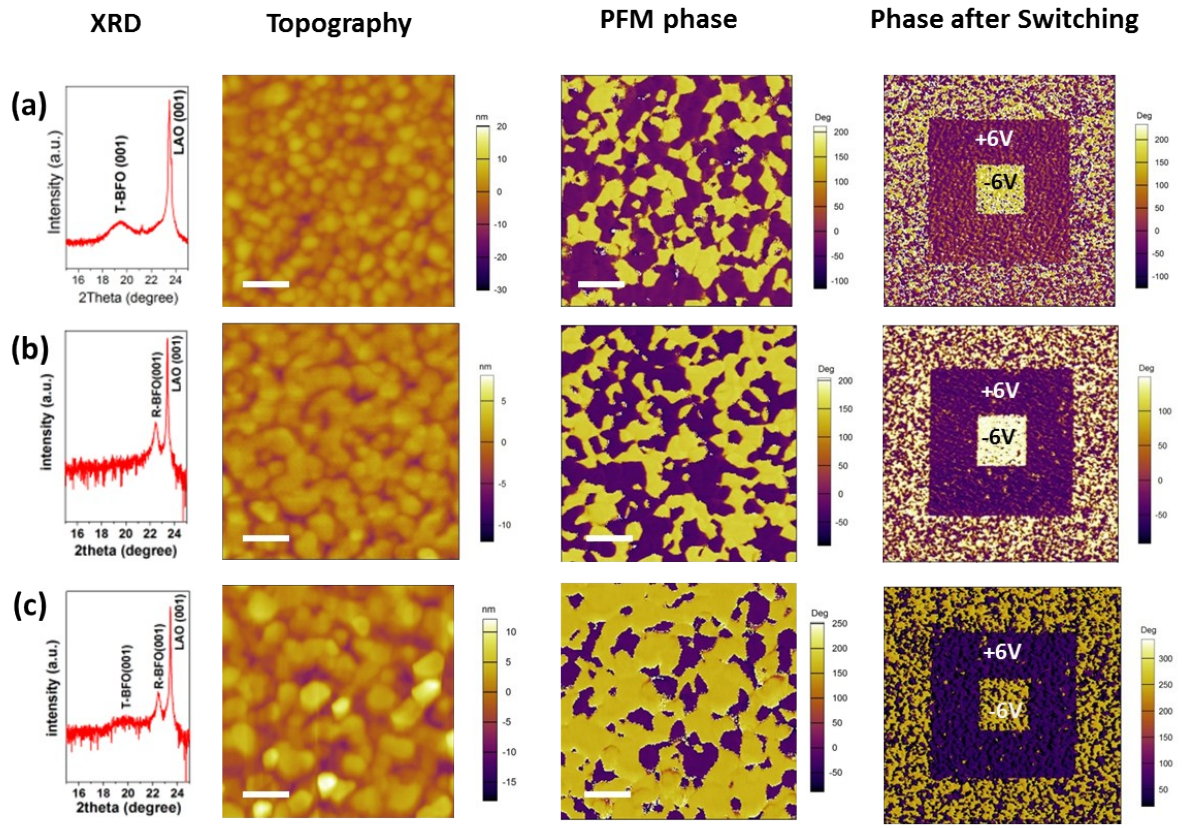

Figure S4 (a) BFO–T' phase; (b) BFO-R' phase; (c) BFO mixed-phase; 1st column: XRD pattern; 2nd column: topography (1 µm ×1 µm, Scale bar: 200 nm); 3rd column: as grown phase image(1 µm ×1 µm, Scale bar: 200 nm)); 4th column: phase image(5 µm ×5 µm) after writing by ±6V; yellow phase- pole down, dark/purple phase-pole up.