

ARTICLE

Supporting information

Thermal and compositional driven relaxor ferroelectric behaviours of lead-free $\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3\text{-SrTiO}_3$ ceramics

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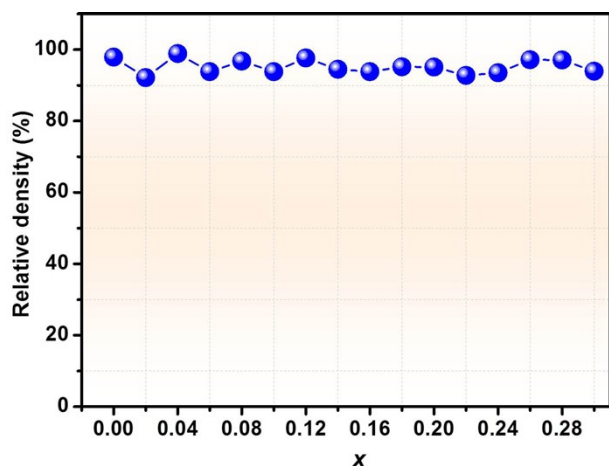


Figure S1. Relative densities of BNT-ST ceramics sintered at optimal temperatures from 1160 °C to 1130 °C.

Figure S1 illustrates the relative densities of BNT-ST ceramics sintered under optimal temperatures, which are in the range of 93% to 98%. The sintering temperature is decreased from 1160 °C to 1130 °C with increasing ST content from 0 to 0.30.

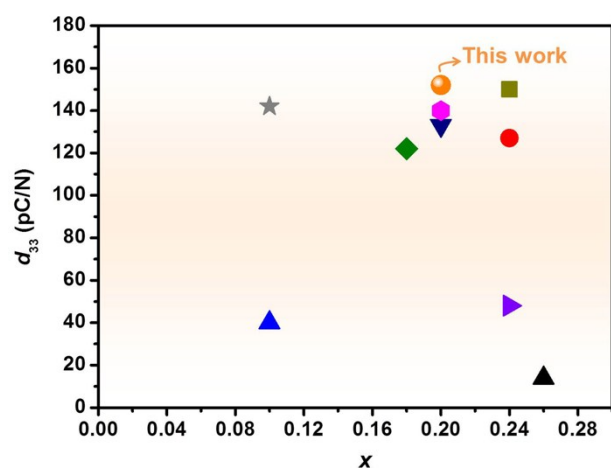


Figure S2. Piezoelectric coefficients (d_{33}) against different ST contents in reported (1-x)BNT-100xST ceramics.

The piezoelectric coefficient (d_{33}) of reported BNT-ST compositions as well as the d_{33} value in this work are exhibited in Figure S2. The maximum piezoelectric coefficient of 152 pC N⁻¹ is obtained at $x = 0.20$ in this work, which is superior to the reported performances.