Supplementary Information for

Simultaneously enhanced piezoelectric properties and thermal stability of Pb(Zr, Ti)O_3-based ceramics by composition design strategy

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Table S1 Lattice parameters obtained from the Rietveld structural refinements.

x	Space group	Lattice parameters				Cell volume (Å^3)	Phase content (%)	Tetragonality (*c*/*a*)
		a (Å)	*b* (Å)	*c* (Å)	Angle (°)			
0	*P*4mm	4.0506	4.0506	4.1213	$\alpha = \beta = \gamma =$ 90	67.618	13.34	1.017
	*R*3m	4.0737	4.0737	4.0737	$\alpha = \beta = \gamma =$ 89.707	67.602	86.66	
0.005	*P*4mm	4.0487	4.0487	4.1208	$\alpha = \beta = \gamma =$ 90	67.550	70.13	1.018
	*R*3m	4.0736	4.0736	4.0736	$\alpha = \beta = \gamma$ =89.713	67.596	29.97	
0.01	*P*4mm	4.0475	4.0475	4.1206	$\alpha = \beta = \gamma =$ 90	67.504	53.24	1.018
	*R*3m	4.0735	4.0735	4.0735	$\alpha = \beta = \gamma =$ 89.715	67.594	46.76	
0.015	*P*4mm	4.0466	4.0466	4.1199	$\alpha = \beta = \gamma =$ 90	67.465	60.91	1.018
	*R*3m	4.0730	4.0730	4.0730	$\alpha = \beta = \gamma =$ 89.719	67.564	39.09	
0.02	*P*4mm	4.0465	4.0465	4.1209	$\alpha = \beta = \gamma =$ 90	67.468	66.35	1.018
	*R*3m	4.0725	4.0725	4.0725	$\alpha = \beta = \gamma =$ 89.7357	67.522	33.65	
0.025	*P*4mm	4.0451	4.0451	4.1215	$\alpha = \beta = \gamma =$ 90	67.443	77.09	1.019
	*R*3m	4.0719	4.0719	4.0719	$\alpha = \beta = \gamma =$ 89.769	67.514	22.91	

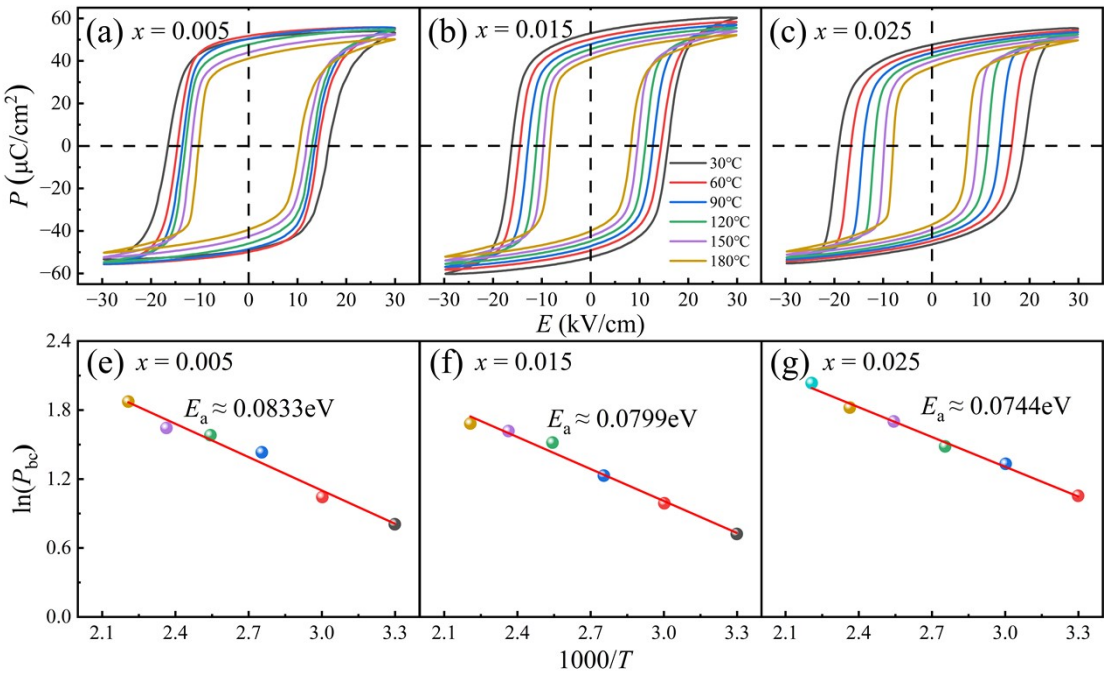

Fig.S1 (a)-(c) The *P*-*E* loops dependence of Nd_2O_3 content for the PNZTN-*x* ceramics; (d)–(f) Plot of ln(P_{bc}) versus 1000/T.

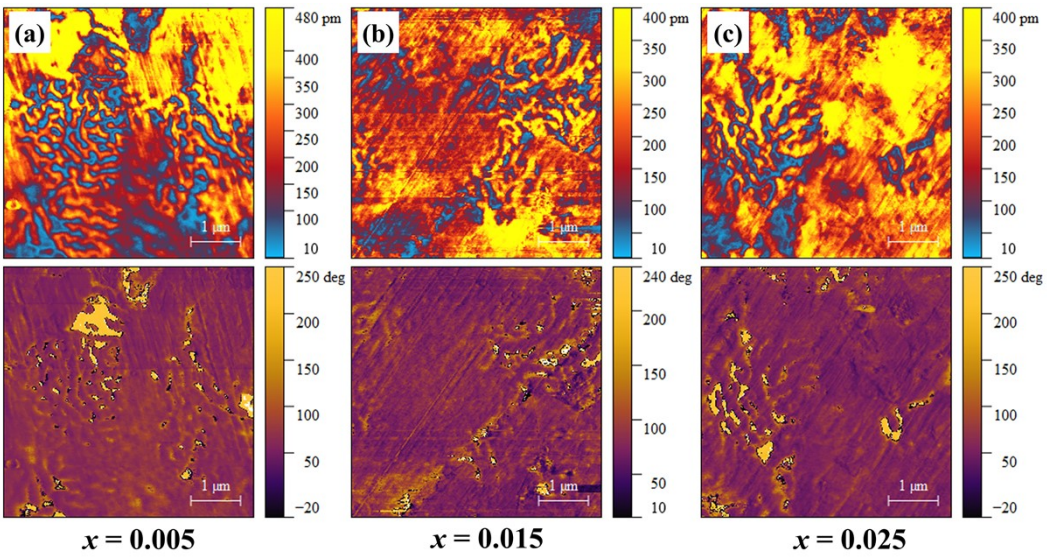

Fig.S2 PFM measurements for the PNZTN-*x* ceramics with (a) x = 0.005, (b) x = 0.015, (c) x = 0.025.