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

Large electrocaloric and pyroelectric energy harvesting effect over a broad temperature range via modulating relaxor behavior in non-relaxor ferroelectrics

Supplementary Materials

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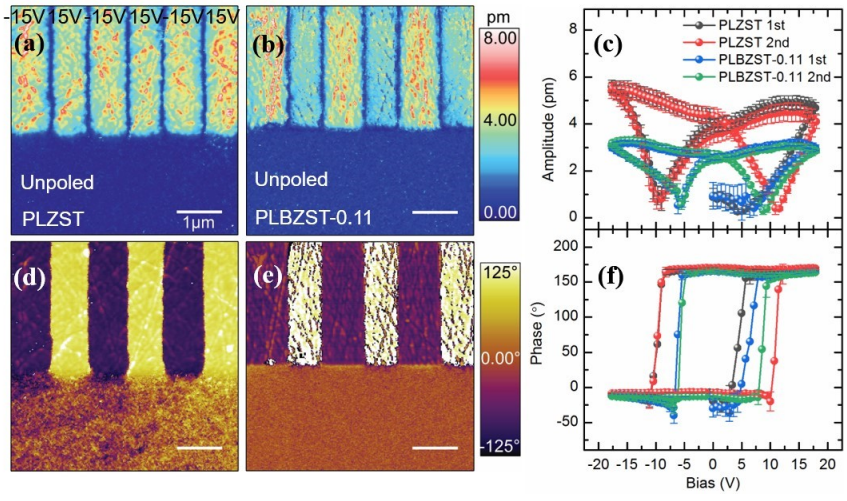

Figure S1. The PFM amplitude and phase of unpoled PLZST and PLBZST-0.11 ceramics.

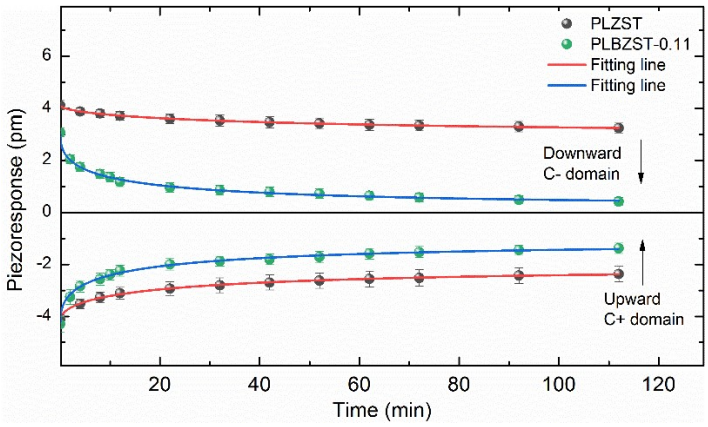

Figure S2. The relaxation process of the piezoresponse of PLZST and PLBZST-0.11 samples.

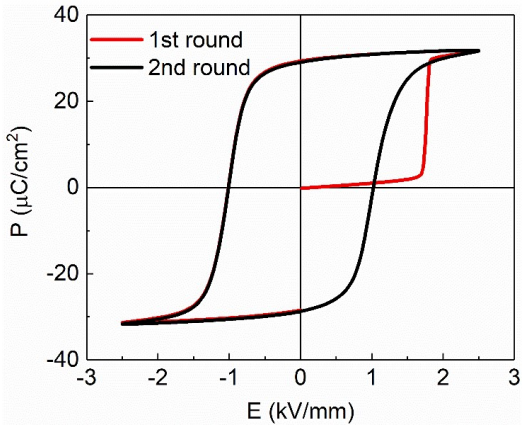

Figure S3. The P-E loops of PLZST ferroelectric ceramics at room temperature.

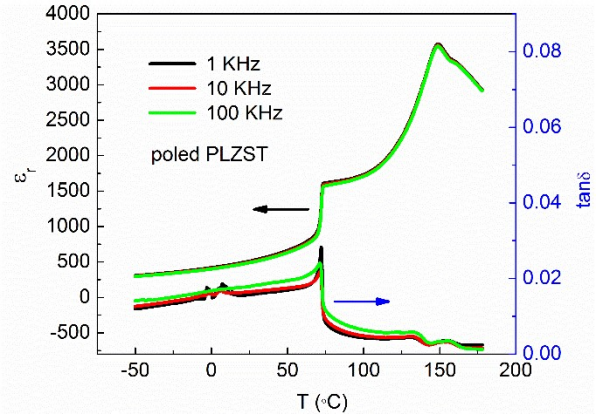

Figure S4. The temperature dependent dielectric constant and dielectric loss of poled PLZST ceramics.

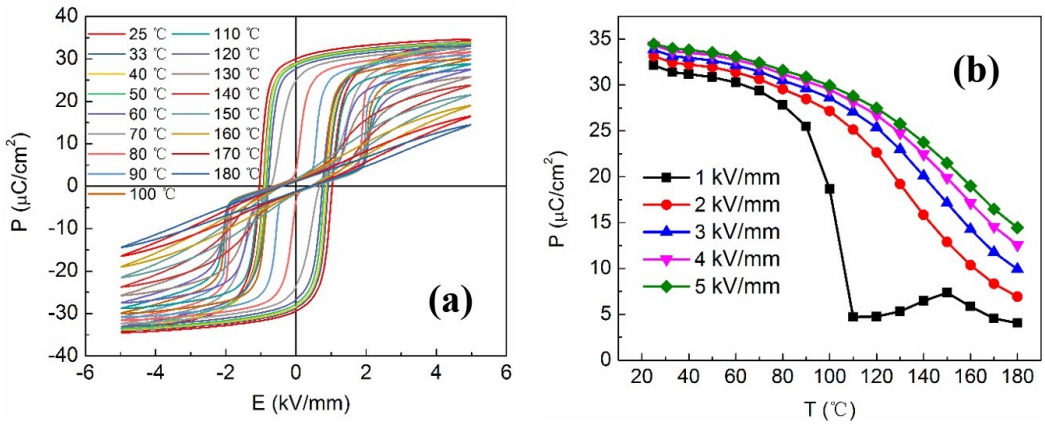

Figure S5. The temperature dependent P-E loops and polarization evolution of PLZST ferroelectric ceramics under different electric fields.

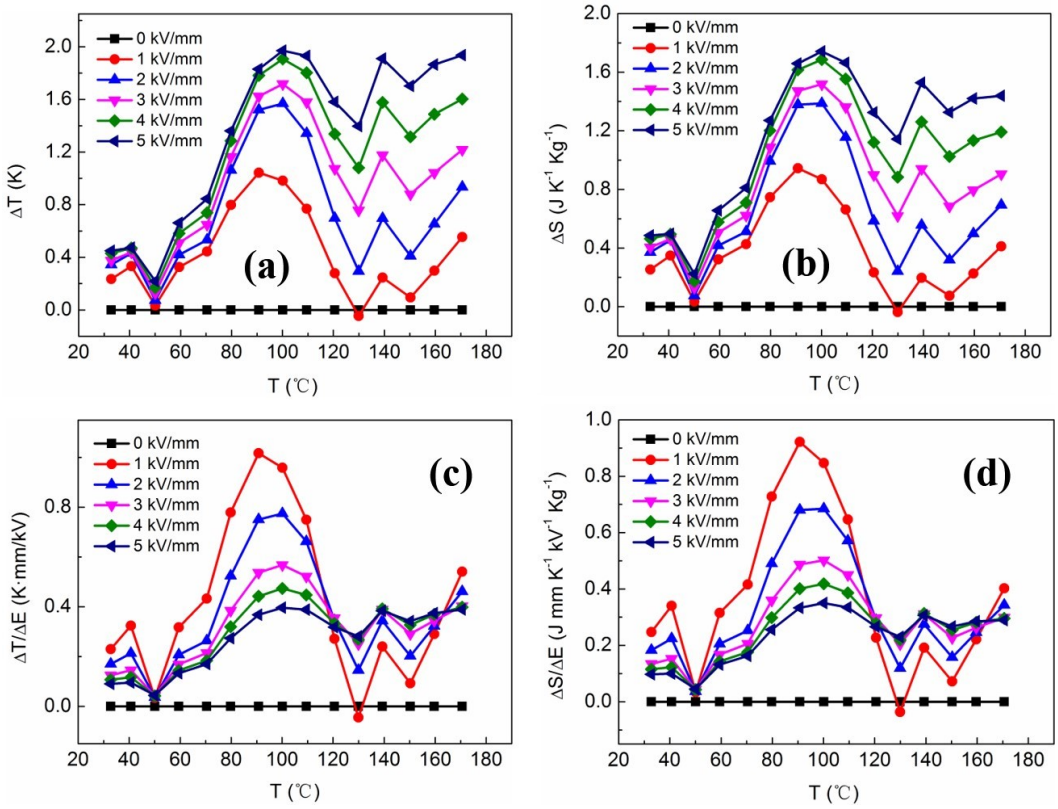

Figure S6. Temperature dependent evolution of (a) △T and (b) △S of PLZST ceramics under different electric fields. The temperature dependent electrocaloric strength (c) △T/△E and (d) △S/△E of PLZST ceramics under various electric fields.