

Supplementary file

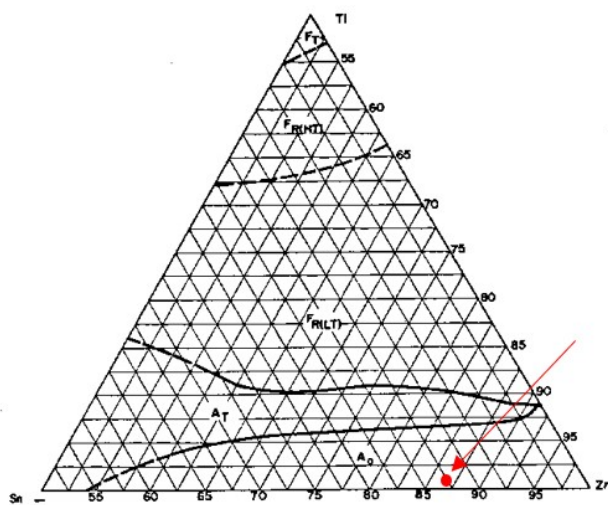


Fig. S1 Phase diagram for the system $\text{Pb}_{0.97}\text{La}_{0.02}(\text{Zr}, \text{Sn}, \text{Ti})\text{O}_3$ at $25\text{ }^\circ\text{C}$,¹ along with the position of the composition for $\text{Pb}(\text{Zr}_{0.87}\text{Sn}_{0.12}\text{Ti}_{0.01})\text{O}_3$.

Fig. S1 is provided to explain why the component $\text{Pb}(\text{Zr}_{0.87}\text{Sn}_{0.12}\text{Ti}_{0.01})\text{O}_3$ was selected.

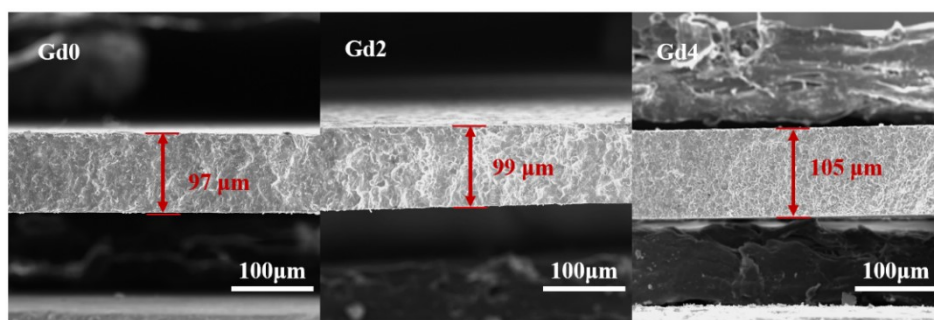


Fig. S2 SEM images of samples' cross section

Fig. S2 graphically confirms the thicknesses of the samples, which are consistent with the measurements of the samples by a thousandth thickness gauge.

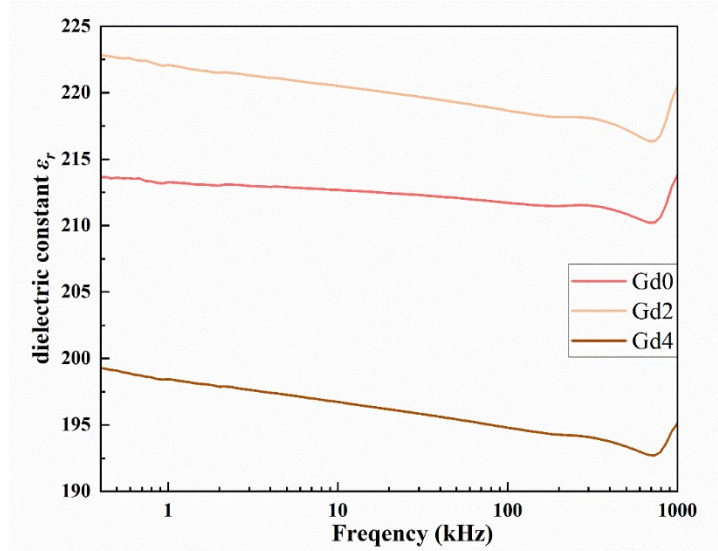


Fig. S3 Frequency-dependent dielectric constant of Gd0, Gd2, Gd4.

Fig. S3 is measured in order to calculate the distribution of electric field.

The references of Fig. 4(d):

PbZrO₃(PZ)²⁻¹⁷, PbHfO₃(PH)¹⁸⁻²¹; AgNbO₃ (AN)²²⁻²⁹, BaTiO₃ (BT)³⁰⁻³³, BiFeO₃ (BF)³⁴⁻³⁷, Na_{0.5}Bi_{0.5}TiO₃ (NBT)³⁸⁻⁴⁸, NaNbO₃ (NN)⁴⁹⁻⁵³.

The references of Fig. 8(d):

PLZST@300 kV/cm⁵⁴, PLZST@240 kV/cm, PLZST@80 kV/cm⁵⁵, PBLZST@130 kV/cm⁵⁶, PH@300 kV/cm¹⁹, AN+Ta@410 kV/cm²⁹, ANT+Mn@800 kV/cm⁵⁷, AN+Ta+Ca@200 kV/cm²⁷, AN+La@320 kV/cm⁵⁸.

The references of Fig. 9(d):

PLZST@100 kV/cm⁵⁹, PBLZST@120 kV/cm⁶⁰, BF-BT-BLN@400 kV/cm⁶¹, BSB@300 kV/cm⁶², NBT-CZT@200 kV/cm⁶³, BNST-BNTSNA@300 kV/cm⁶⁴, BNBLT-0.25SBT@200 kV/cm⁶⁵, NN+Bi@200 kV/cm⁶⁶, BZZ@270kV/cm⁶⁷, BNKTBZ-0.04AN@90 kV/cm⁶⁸, BNKT-KNN@80 kV/cm⁶⁹, BF-BT-0.14AN@100kV/cm⁷⁰.

The references of Fig. 10(c):

PZ⁷¹⁻⁷³, PH^{21, 74, 75}, BT^{32, 76, 77}, AN⁷⁸⁻⁸⁰, BF^{34, 37, 81}, NBT^{42, 82, 83}, NN^{49, 50, 53}.

The references of Fig. 10(f):

PZ⁸⁴⁻⁸⁸, PH^{18, 21, 75}, BT^{32, 76, 89}, AN^{27, 29, 79}, BF^{34, 37, 81}, NBT^{47, 62, 82, 83}, NN^{49, 50, 53}.

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