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Improved thermal stability of ferro/piezo-electric properties of Mn-doped $Pb(In_{1/2}Nb_{1/2})O_3$-$PbTiO_3$ ceramics

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Abstract

Thermal stability of piezo-/ferro-electric properties of ferroelectrics is important for the devices working at elevated temperature. A study on thermal stability of ferroelectrics will be greatly helpful for future applications. In this work, thermal behaviors of electrical properties were studied in Mn-doped $Pb(In_{1/2}Nb_{1/2})O_3$-$PbTiO_3$ (PINT) ceramics. The ferroelectric hysteresis loops of Mn-doped samples change anomalously with increasing temperature