

Electric field-induced strain response of lead-free
 Fe_2O_3 nanoparticles-modified
 $\text{Bi}_{0.5}(\text{Na}_{0.80}\text{K}_{0.20})_{0.5}\text{TiO}_3-0.03(\text{Ba}_{0.70}\text{Sr}_{0.03})\text{TiO}_3$
piezoelectric ceramics

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Abstract

In this research, the effects of Fe_2O_3 nanoparticles additive on the phase evolution, dielectric, ferroelectric, piezoelectric and electric field-induced strain responses of BNKT-based piezoelectric ceramics were systematically investigated. The $\text{Bi}_{0.5}(\text{Na}_{0.80}\text{K}_{0.20})_{0.5}\text{TiO}_3$ -0.03($\text{Ba}_{0.70}\text{Sr}_{0.03}$)/ TiO_3 or BNKT-0.03BST piezoelectric

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