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ABBREVIATIONS AND SYMBOLS

a	lattice parameter a
ac	alternating current
A	area
b	lattice parameter b
C	Curie-Weiss constant
c	capacitance
dc	direct current
d_{ij}	piezoelectric coefficients
DMM	Digital Multimeters
DPT	Diffuse Phase Transition
E	electric field (V m^{-1}); strain
ΔEN	electronegativity
E_c	Coercive field
e	electron charge
f	frequency
f_a	anti-resonance frequency
f_r	resonance frequency
F	normal ferroelectric
I_{perov}	maximum intensity of perovskite phase
I_{pyro}	maximum intensity of pyrochlore phase
I_{PbO}	maximum intensity of lead oxide phase

K_α	radiation of K series
k_{ij}	electromecharnical coupling
LCR	Inductance/Capacitance/Resistance
MW	molecular weight
MPB	Morphotropic Phase Boundaries
MCP	Mixed and Calcination Processes
P-E	polarization versus electric field
P_s	spontaneous polarization
P_r	remanent polarization
P	paraelectric
PVA	poly(vinyl alcohol)
r_i	radius of atom
R	relaxor ferroelectric
Rh. Domain	rhombohedral domains
SEM	scanning electron microscopy
S_{ij}	field-induced strain
TEM	transmission electron microscopy
T_o	Curie-Weiss temperature
T_{RT}	Rhombohedral to Tetragonal temperature
T_{max}	temperature at maximum permittivity
T_m	Transition temperature
T_c	Curie point
Tet. Domain	tetragonal domains

t	thickness; tolerance factor
tan δ	loss tangent
V	voltage; volume
XRD	x-ray diffraction
$X_{A\text{-}O}$	electronegativity differences of cation A and oxygen
$X_{B\text{-}O}$	electronegativity differences of cation B and oxygen
δ	diffuseness parameter
ε	real part of the permittivity
ε_0	permittivity of free space
ε_r	relative permittivity
ε_{max}	the permittivity at T_{max}
γ	critical exponent
ω	driving frequency