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ABBREVIATIONS AND SYMBOLS

ВТ	Barium titanate
PZT	Lead zirconate titanate
PMN	Lead magnesium niobate
МРВ	Morphotropic phase boundary
ZT	Zirconium titanate
MN	Magnesium niobate
Qm	Electrostrictive coefficient
tan δ	Dissipation factor, dielectric loss
kp	Planar coupling factor
εr	Dielectric constant, relative permittivity
$\epsilon_r(T_R)$	Dielectric constant at room temperature
ε _{r,max}	Maximum dielectric constant
ε _o	Permittivity of the free space
PT	Lead titanate
SaFE	Ferroelectric
AFE	Antiferroelectric
Coperight	Lead zirconate Chiang Mai University
A P _c	Paraelectric cubic phase Per Control
A_{T}	Antiferroelectric tetragonal phase
A _o	Antiferroelectric orthorhombic phase

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	$F_R(HT)$	High temperature ferroelectric rhombohedral phase
	F _R (LT)	Low temperature ferroelectric rhombohedral phase
	FT	Ferroelectric tetragonal phase
	DTA	Differential thermal analysis
	XRD	X-ray diffraction
	PC	(Pseudo)cubic phase
	С	Cubic phase
	T	Tetragonal phase
- 1	M	Monoclinic phase
	R _{HT}	Rhombohedral phase at high temperature
	R _{LT}	Rhombohedral phase at low temperature
	Tc	Curie temperature
	Pyro	Pyrochlore phase
	IR	Insulation resistance
	T_{max} or $T(\epsilon_{r,max})$	Temperature at maximum dielectric constant
	SEM	Scanning electron microscope / microscopy
S.	MCP	Mixing and calcination processes
QU	PVA	Polyvinyl alcohol
Co	TEMISIT	Transmission electron microscope / microscopy
A	$T(\tan \delta_{max})$	Temperature at maximum dielectric loss e r v e o