

Supporting Information

Meso- to Nano-scopic Domain Structures in High Curie- Temperature Piezoelectric BiScO₃-PbTiO₃ Single Crystals of Complex Perovskite Structure

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Table 1. Refined crystallographic data for BS-PT at room temperature (RT) and 500 °C. Space group, lattice parameters (a , b , c), angle (β), atomic positions, and goodness parameters (R_{exp} , R_{wp} , R_p , GOF) are listed: (a) $P4mm$ model, (b) mixed model of $P4mm$ and $Pm-3m$.

Composition		0.324BS-0.676PT			
Temperature		500 °C	RT		
Space group		$Pm-3m$	(a) $P4mm$	(b) $P4mm$ $Pm-3m$	
Phase fraction				80.64	19.36
a		4.0231(4)	3.9760(5)	3.9759(4)	4.0122(4)
b		4.0231(4)	3.9760(5)	3.9759(4)	4.0122(4)
c		4.0231(4)	4.1003(8)	4.1003(8)	4.0122(4)
β		90	90	90	90
Bi/Pb	x	0	0	0	0
	y	0	0	0	0
	z	0	0	0	0
Sc/Ti	x	0.5	0.5	0.5	0.5
	y	0.5	0.5	0.5	0.5
	z	0.5	0.55705	0.55705	0.5
O1	x	0.5	0.5	0.5	0.5
	y	0.5	0.5	0.5	0.5
	z	0	0.0669	0.0669	0
O2	x		0.5	0.5	
	y		0	0	
	z		0.57565	0.57565	
R_{exp}		5.179	5.276	5.268	
R_{wp}		10.408	18.104	11.211	
R_B		2.195	4.299	2.382	4.022
GOF		2.01	3.431	2.128	

2. Video of $|\sin\delta|$ (Sind_1. mp4) images as a function of temperature.

3. Video of orientation (Ori_1. mp4) images as a function of temperature.