

Photo-dielectric and electric field effect on the structural and phonon properties of calcium substituted BaTiO₃

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Supplementary Information

Supplementary figure Captions:

Fig.S1 Rietveld refinement of room temperature x-ray diffraction (XRD) pattern of BCTO with tetragonal ($P4mm$) symmetry (the peak at 33.02° is very weak and visible and not fitted with $P4mm$ symmetry)

Fig.S2 Rietveld refinement of room temperature x-ray diffraction (XRD) pattern of BCTO with mixed tetragonal ($P4mm$) and orthorhombic ($Pna2_1$) symmetry (the peak at 33.02° is well fitted with $Pna2_1$ symmetry)

Fig.S3 The effect of different poling electric field on the x-ray diffraction intensities of BCTO at room temperature

Fig.S4 Raman spectra of poled and unpoled BCTO at room temperature

Fig.S5 The zoomed view of the frequency independent maxima in ϵ' vs T curve at different frequencies near transition temperature.

Supplementary Figures:

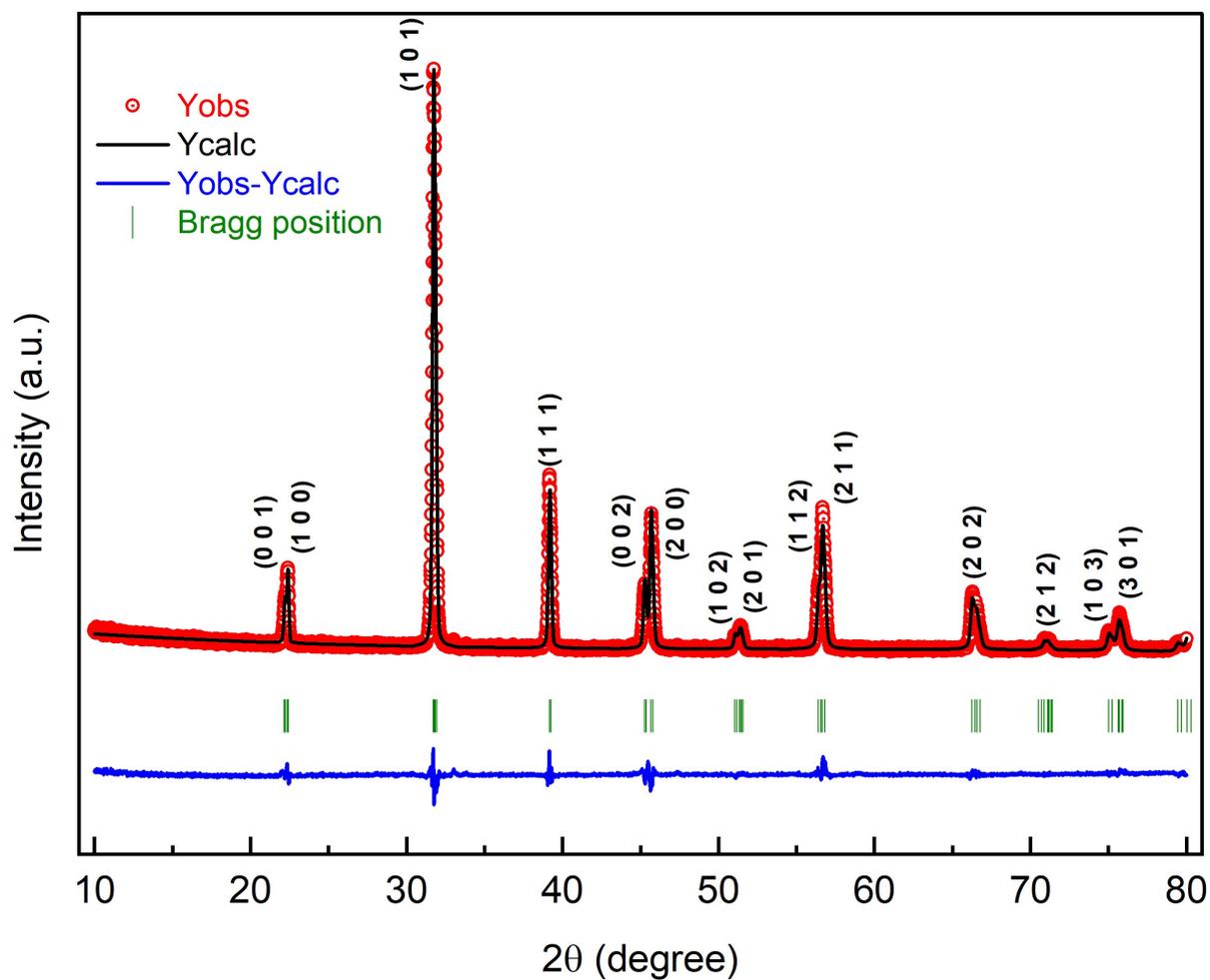


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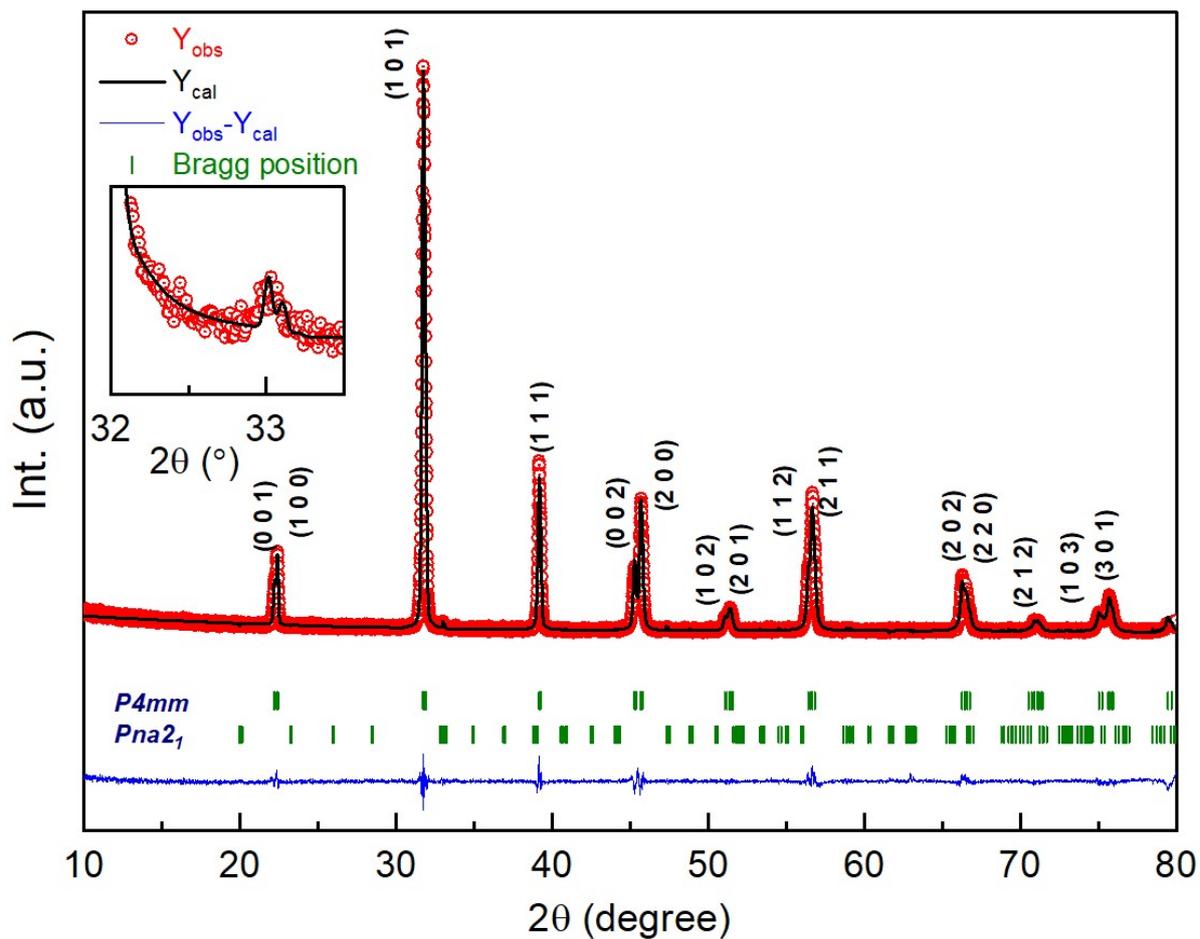


Fig.S2 Rietveld refinement of room temperature x-ray diffraction (XRD) pattern of BCTO with mixed tetragonal ($P4mm$) and orthorhombic ($Pna2_1$) symmetry (the peak at 33.02° is well fitted with $Pna2_1$ symmetry)

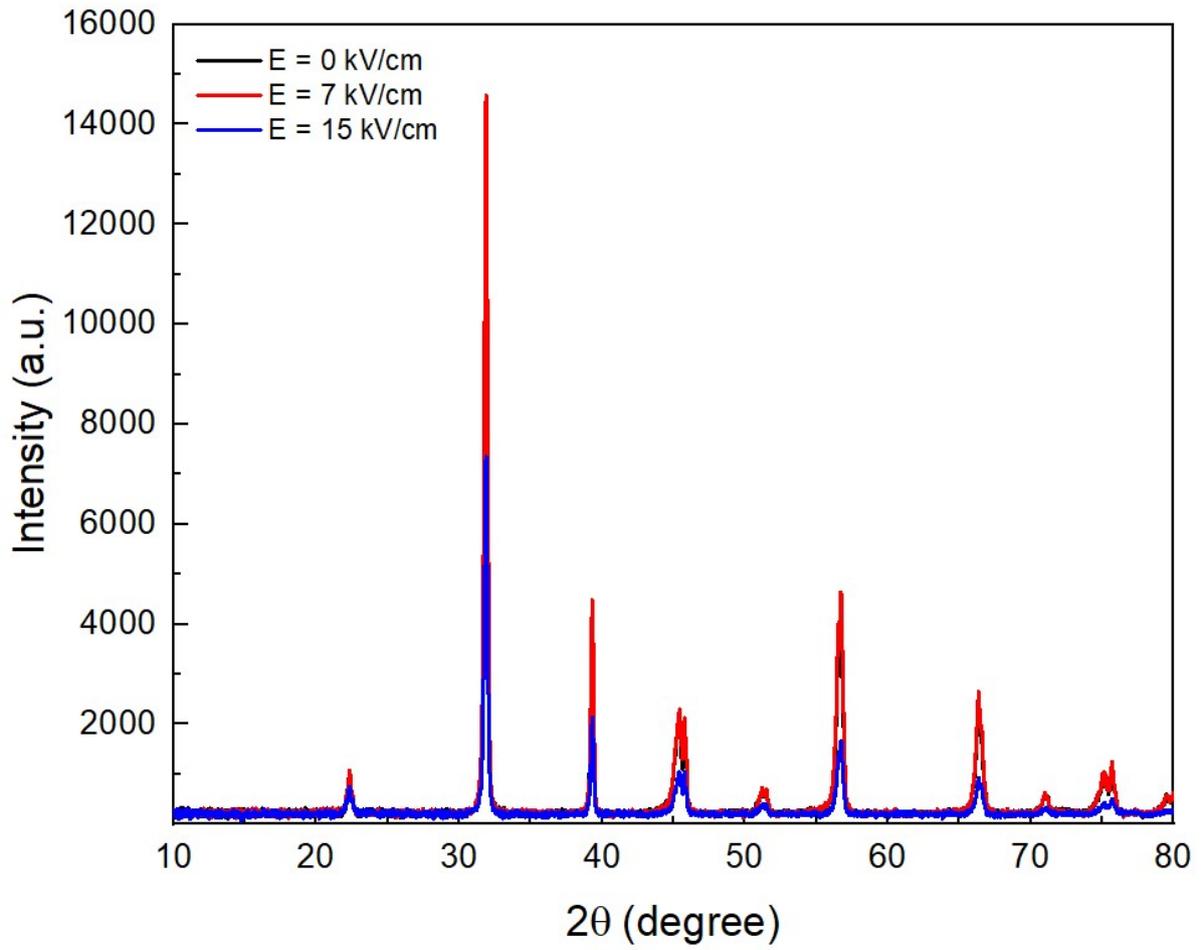


Fig.S3 The effect of different poling electric field on the x-ray diffraction intensities of BCTO at room temperature

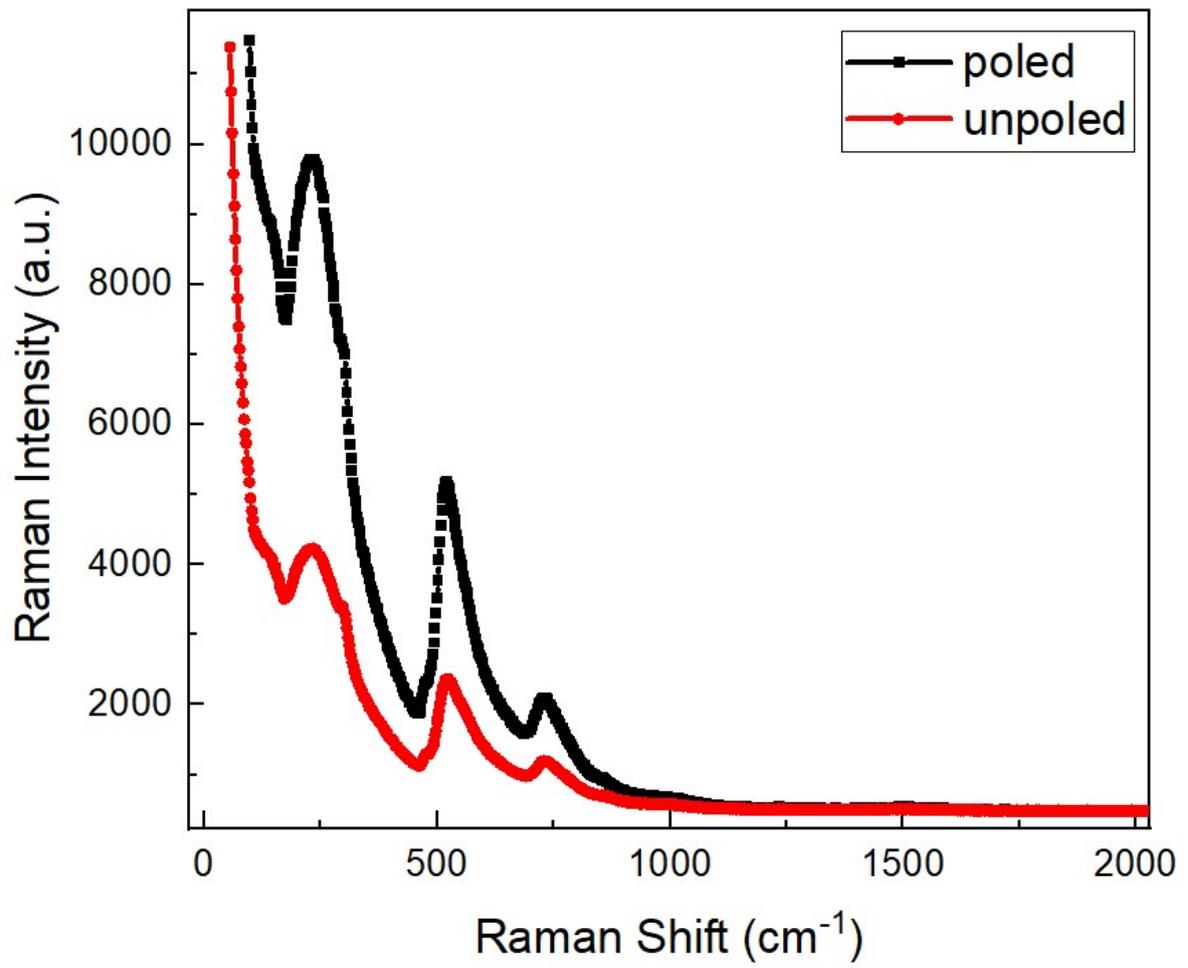


Fig.S4 Raman spectra of poled and unpoled BCTO at room temperature

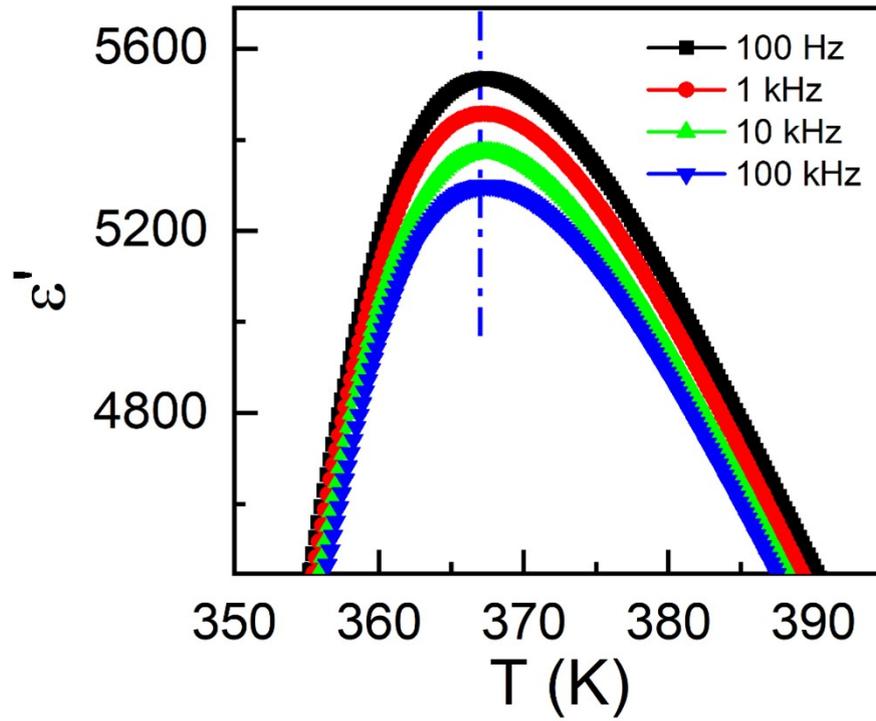


Fig.S5 The zoomed view of the frequency independent maxima in ϵ' vs T curve at different frequencies near transition temperature.