Supporting Information for

Development of transverse thermoelectric voltage effect in artificial SrTiO₃/SrTi₁₋ₓNbₓO₃ epitaxial multilayer films with incline-oriented sublayers

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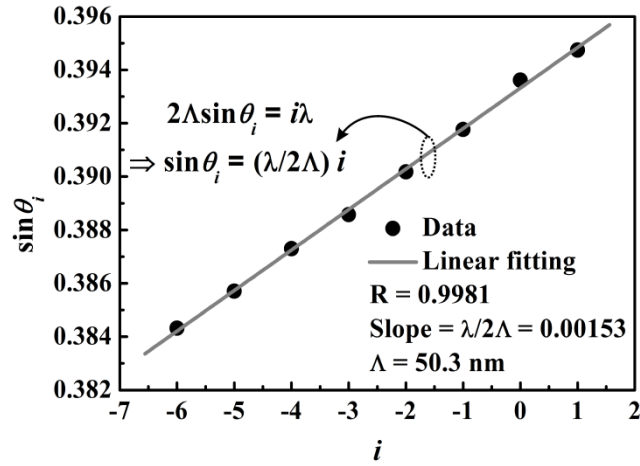
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Fig. S1 The graphical determination of the modulation length using the angular positions of the satellite peaks. For a practical example, the plot of $\sin\theta_i$ is a function of i for the film of $m = 26$ s. The modulation length Λ can be extracted from the slope of $\sin\theta_i$–i plot by fitting the data points.
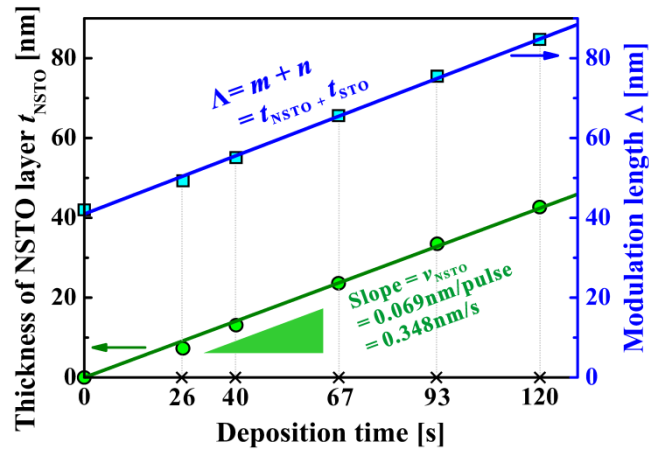

Fig. S2 The variation trendency of t_{NSTO} and Λ with different value of m. The modulation length and the thickness of NSTO seem to be proportional to the deposition time as noticed by the solid lines, which are the linear fit to the data. The deposition rate of NSTO is determined as 0.348 $nm \cdot s^{-1}$ or 0.069 $nm \cdot pulse^{-1}$ from the slope of the fitting line.
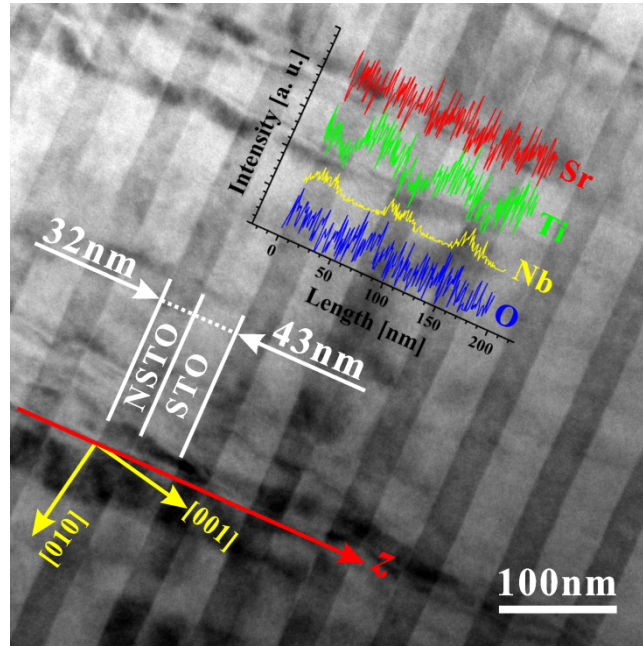
Fig. S3 The cross-sectional bright-field TEM image of the samples as t_{NSTO} = 32 nm. The composition analyzed by EDX, reveals the distribution of Sr, Ti, Nb and O along the epitaxial direction.