

Supporting information for:

**Synthesis and transparent conductivity of crack-free La:BaSnO₃ epitaxial
flexible sheet**

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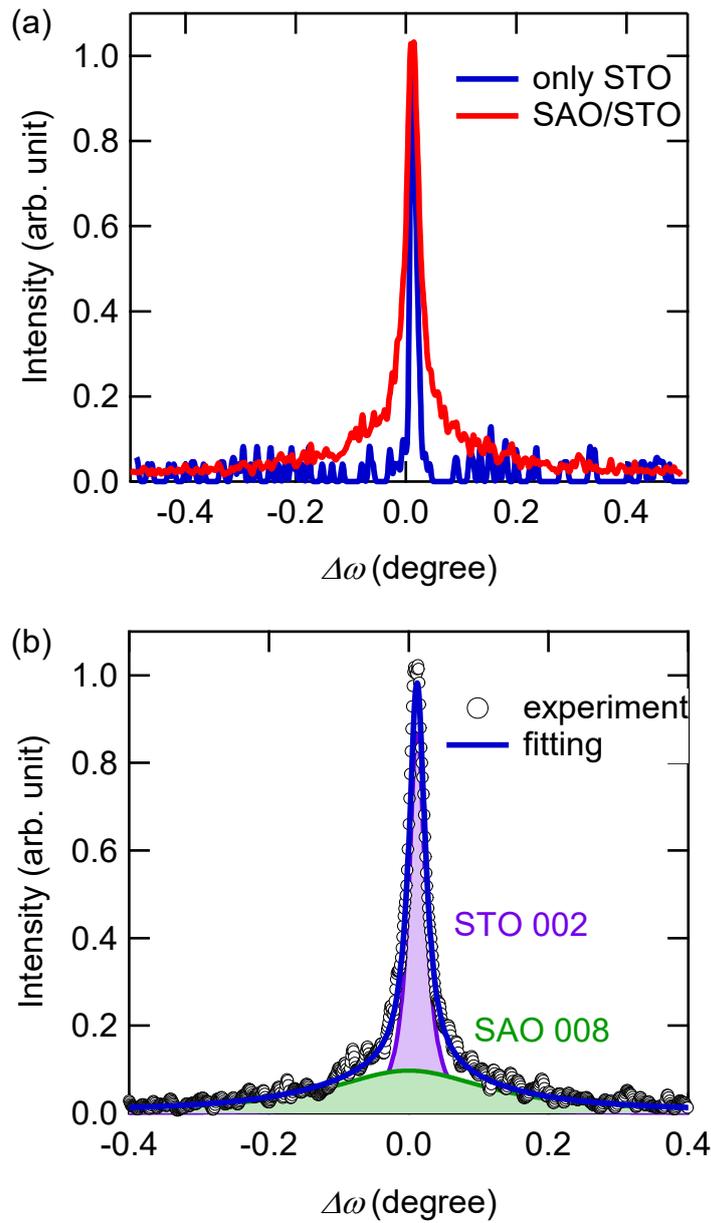


Figure S1. (a) Rocking curves at $q_z/2\pi = 5.06 \text{ nm}^{-1}$ for the SAO/STO film and only STO substrate.

(b) Experiment and fitting results of the rocking curves at $q_z/2\pi = 5.06 \text{ nm}^{-1}$ for the SAO/STO film.

The SAO 008 diffraction peak was observed at $q_z/2\pi = 5.06 \text{ nm}^{-1}$ in the out-of-plane XRD pattern (Figure 3(a)). Figure S2(a) shows rocking curves at $q_z/2\pi = 5.06 \text{ nm}^{-1}$ for the as-grown film grown on STO substrate and only STO substrate. In both samples, sharp STO 002 diffraction peaks were observed. Compared to the only STO substrate, the as-grown film shows a wide shoulder in the

rocking curve. Figure S2(b) shows the result of fitting a rocking curve of the as-grown film contains two peaks. The sharp peak is derived from STO 002 diffraction peak, while the narrow peak originates from the SAO 008 diffraction peak. The full width half maximum of the rocking curve for the SAO 008 diffraction peak is 2.8° .

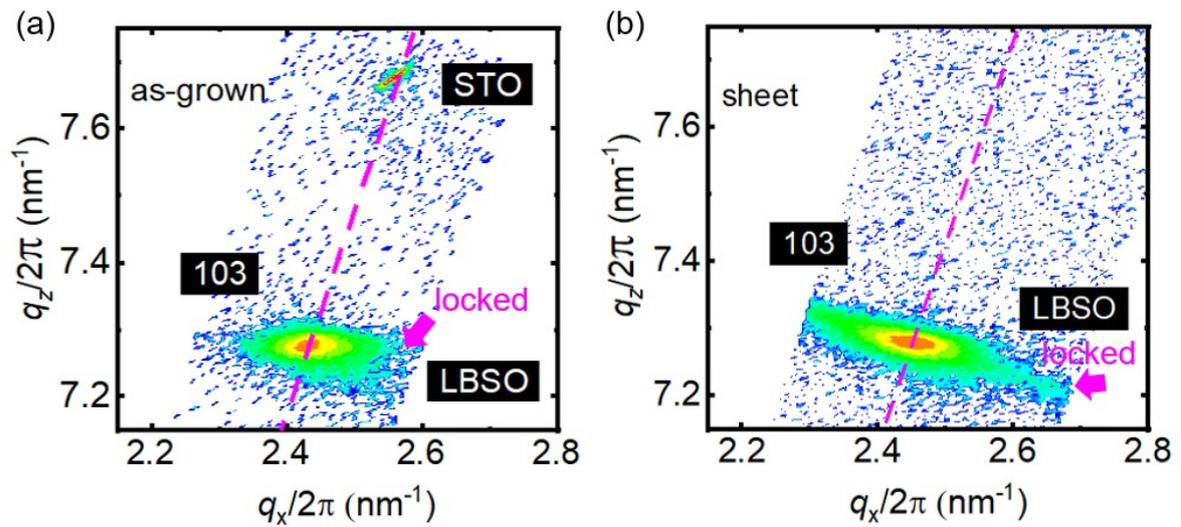


Figure S2. Reciprocal space map of the (c) as-grown film and (b) flat sheet on PET substrate.