

Addendum: Solution epitaxy of polarization-gradient ferroelectric oxide films with colossal photovoltaic current

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In this article, we reported a solution epitaxy of ferroelectric oxide films, focusing on single-crystal film of PbTiO_3 on single-crystal $\text{Nb}:\text{SrTiO}_3$ substrate. We would like to provide additional information to further support its epitaxy and single-crystal character by electron back-scattered diffraction (EBSD) and rocking curve analysis. Figure 1a presents a typical EBSD band contrast map of PbTiO_3 film in a relatively large area, and the uniform color of the inverse pole figure (IPF) map in the Z direction (IPF Z in Fig. 1b) demonstrates that PbTiO_3 film is a single crystal. Furthermore, the fullwidth at half maxima (FWHM) of the rocking curve (Fig. 1c) scanned around the (001) diffraction peak is only 0.028° , indicating a high-quality epitaxy of PbTiO_3 film on the substrates.

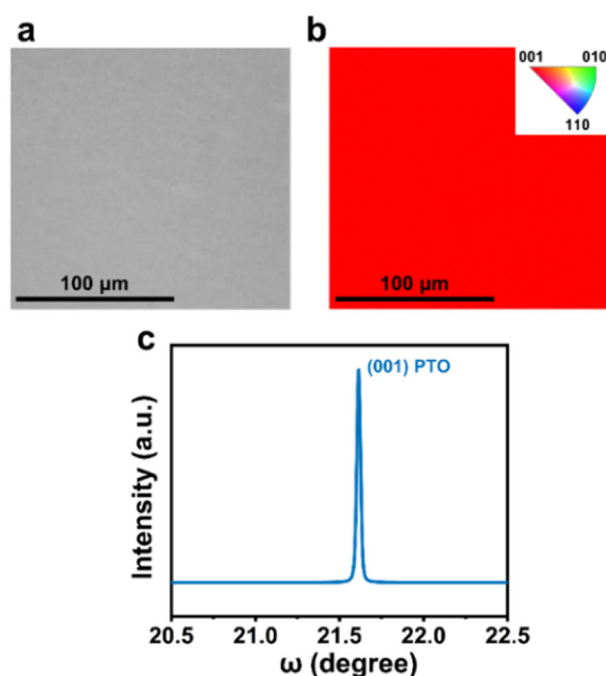


Fig. 1 EBSD and rocking curve analysis of PbTiO_3 film on (100) $\text{Nb}(0.7\text{wt}\%):\text{SrTiO}_3$ substrate. **a** EBSD band contrast image. **b** corresponding EBSD IPF Z direction color map. **c** rocking curve of PTO film (001) peak.

Corrections & amendments

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