

Erratum: Surface termination conversion effect on the electronic structure of two-dimensional electron gas at EuTiO_3 surfaces [Phys. Rev. Materials **10, L021001 (2026)]**

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In the original Letter, there is an error in Fig. 1(f). The fourth image shows a magnified view of EuO (A-site)-terminated EuTiO_3 surface structure. The label in this image is incorrect. It is labeled “ABF” but was obtained using HAADF as stated in the figure caption. Figure 1 is replaced with the corrected version shown below.

Additionally, the abbreviation “ADF” was incorrectly used in the fourth paragraph. The sentence “High-angle annular dark-field (HAADF) and annular bright-field (ADF) STEM images were obtained using a Thermo Fisher Scientific Themis Z aberration-corrected and monochromated microscope operated at 300 kV with a probe current of 90 pA and a dwell time of 2 μs .” should read “High-angle annular dark-field (HAADF) and annular bright-field (ABF) STEM images were obtained using a Thermo Fisher Scientific Themis Z aberration-corrected and monochromated microscope operated at 300 kV with a probe current of 90 pA and a dwell time of 2 μs ”

These corrections do not affect the analysis, results, or conclusions of the Letter.

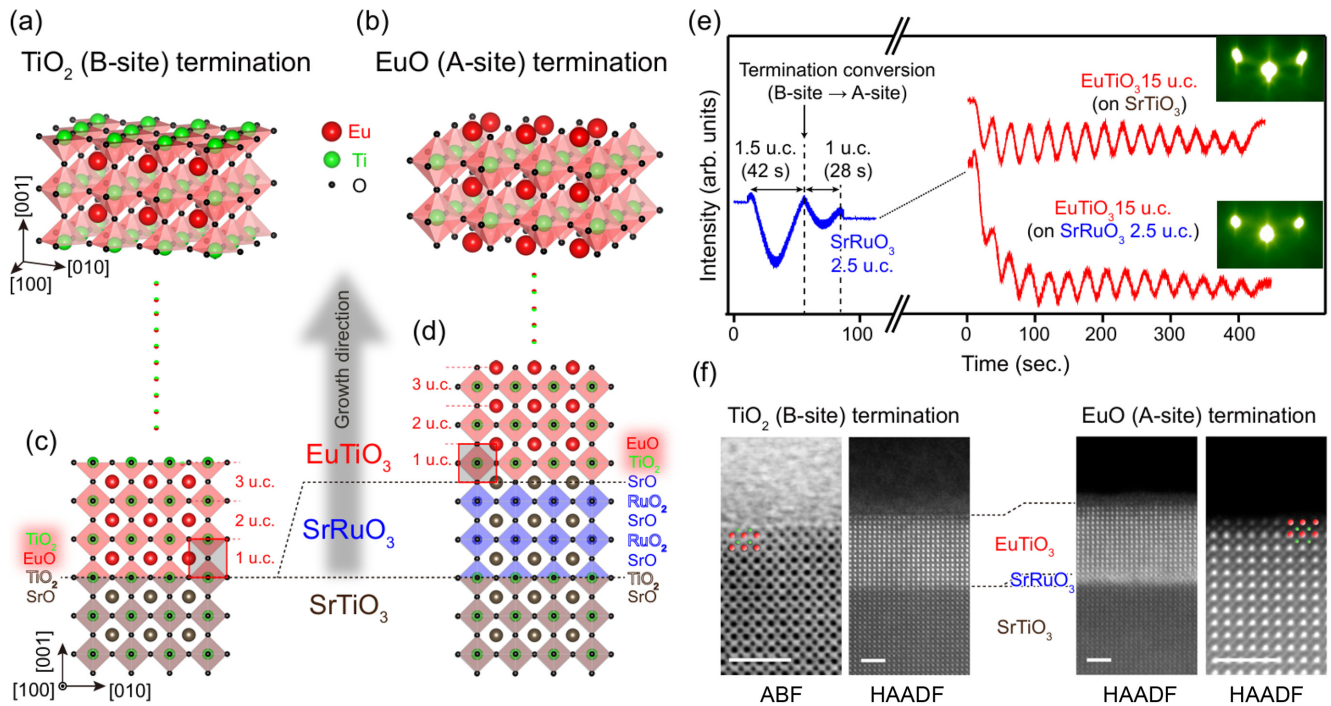


FIG. 1. Termination engineering in EuTiO_3 (ETO) heterostructure. Geometry of (a) TiO_2 (B-site)-terminated and (b) EuO (A-site)-terminated ETO film near the surface. Red, green, and black spheres represent Eu, Ti, and O atoms, respectively. Schematics of (c) $\text{ETO}/\text{SrTiO}_3$ (ETO/STO) and (d) $\text{ETO}/\text{SrRuO}_3/\text{SrTiO}_3$ (ETO/SRO/STO) heterostructure. ETO/STO (ETO/SRO/STO) heterostructure is terminated with TiO_2 (EuO) layer. Both heterostructures were grown on TiO_2 (B-site)-terminated STO. (e) Reflection high-energy electron diffraction (RHEED) intensity oscillation during the heterostructure growth. RHEED images taken after the deposition of heterostructures, followed by postannealing with each termination, are included. (f) Cross-sectional scanning transmission electron microscopy (STEM) images of ETO heterostructures. The second and third images show high-angle annular dark-field (HAADF) STEM images of the 5 nm Se capped $\text{ETO}/\text{SrTiO}_3$ and $\text{ETO}/\text{SrRuO}_3/\text{SrTiO}_3$ heterostructures, respectively, illustrating the overall structure. For STEM measurement, we use ten unit cell ETO layer. The first and fourth images show magnified annular bright-field (ABF) STEM and HAADF STEM images respectively, revealing the TiO_2 and EuO terminations. The crystal structures of ETO are overlaid for a guide to the eye. All scale bars represent 2 nm.