Supporting Information

for

Observation of unexpected uniaxial magnetic anisotropy in La$_{2/3}$Sr$_{1/3}$MnO$_3$ films by a BaTiO$_3$ overlayer in an artificial multiferroic bilayer

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Additional figures
Figure S1: Magnetization hysteresis loops performed in the BTO/LSMO/STO bilayer to prove that the magnetization easy axis has an in-plane orientation.

Figure S2: In-plane $[\varepsilon_{xx}$ and $f_{z}$] vertical strain profiles that cover the entire thickness of the BTO layer.