

Electronic Supplementary Information

Selective fluorination of perovskite iron oxide/ruthenium oxide heterostructures via a topotactic reaction

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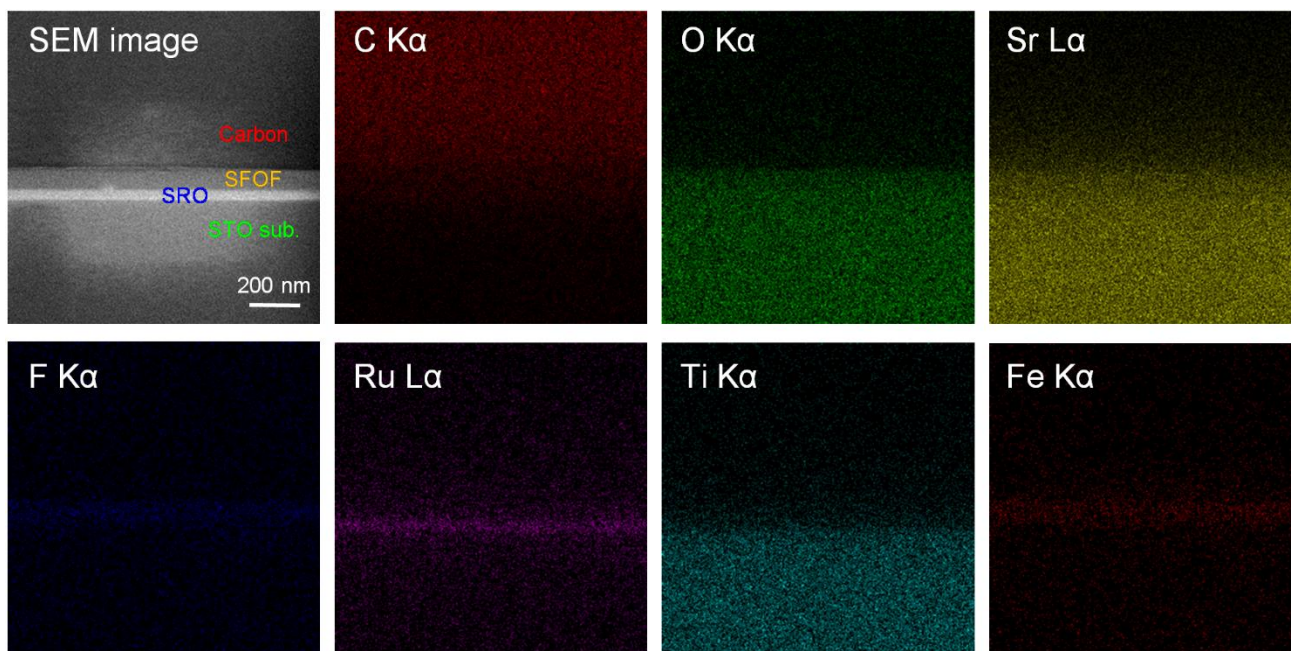


Figure S1. Cross-sectional SEM image of the SFOF (~70 nm)/SRO (~40 nm) bilayer film and corresponding EDX maps for C, O, Sr, F, Ru, Ti, and Fe. The electron-accelerating voltage was set to 10 keV.

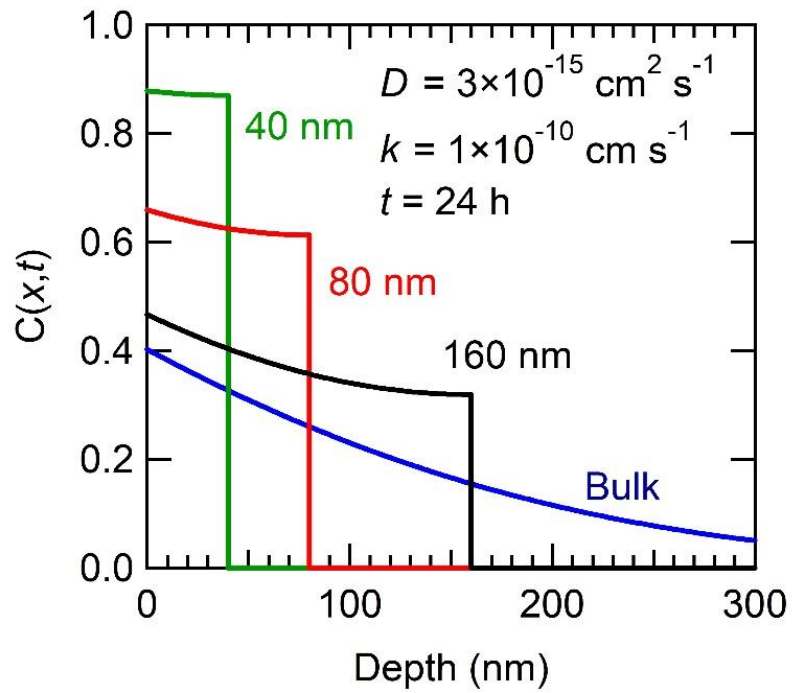


Figure S2. Depth dependence simulation of $C(x)$ for thin films with $l = 40, 80, 160 \text{ nm}$, and for a bulk sample with $l \rightarrow \infty$ at $t = 24 \text{ h}$, where D and k were assumed to $3 \times 10^{-15} \text{ cm}^2 \text{ s}^{-1}$ and $1 \times 10^{-10} \text{ cm}^2 \text{ s}^{-1}$, respectively.