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Title: Realization of single terminated surface of perovskite oxide single crystals and their band profile: (LaAlO₃)_{0.3}(Sr₂AlTaO₆)_{0.7}, SrTiO₃ and KTaO₃ case study

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Highlights

- Unified framework for realizing single terminated perovskite oxide substrates.
- Three perovskite oxides substrates STO, LSAT and KTO were targeted.
- The band profile were determined using Kelvin Probe Force Microscopy.
- Possible electronic reconstruction mechanism is proposed at the interface for 2DEG.

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