

Supplemental material for

Ruddlesden-Popper faults in NdNiO₃ thin films

Chao Yang^{1*}, Yi Wang^{1,2*}, Daniel Putzky¹, Wilfried Sigle¹, Hongguang Wang¹, Roberto A. Ortiz¹, Gennady Logvenov¹, Eva Benckiser¹, Bernhard Keimer¹, Peter A. van Aken¹

¹ Max Planck Institute for Solid State Research, Stuttgart, 70569, Germany

² Center for Microscopy and Analysis, Nanjing University of Aeronautics and Astronautics, Nanjing, 210016, P.R. China

* Corresponding authors: c.yang@fkf.mpg.de, wang.yi@nuaa.edu.cn

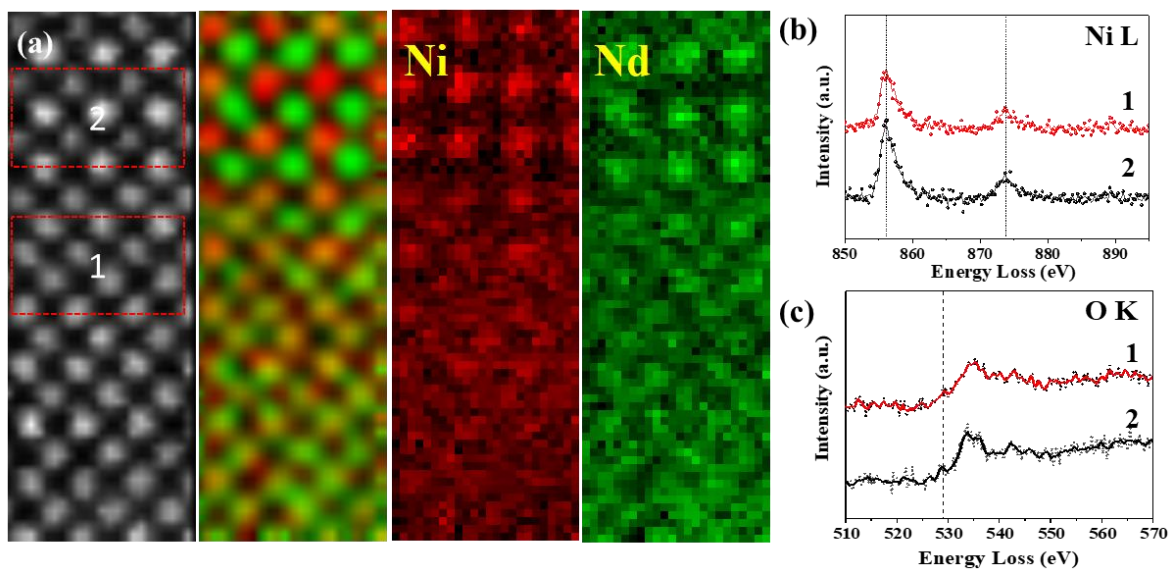


Figure S1. (a) HAADF image of RP fault C and corresponding EELS maps of Ni (red) and Nd (green). (b) Ni L edge and (c) O K edge extracted from regions marked by red dashed boxes in the HAADF image.

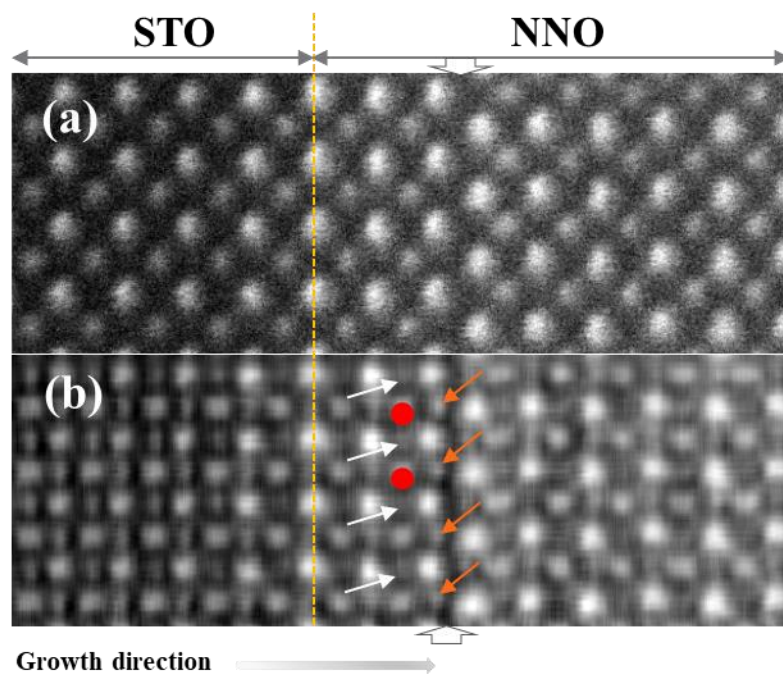


Figure S2. (a) HAADF and (b) inverted ABF images of RP fault A. The white arrows indicate basal O, and orange arrows represent apical O. Ni columns are marked by red circles.

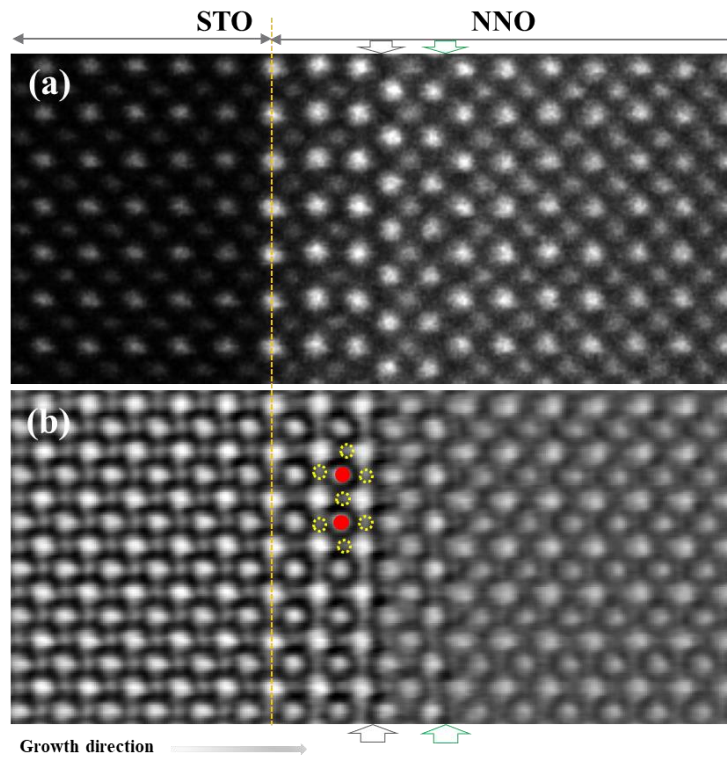


Figure S3. (a) HAADF and (b) inverted ABF image of RP fault B. The yellow circles indicate O columns, and red spots mark the Ni columns. White and green arrows indicate the fault planes.

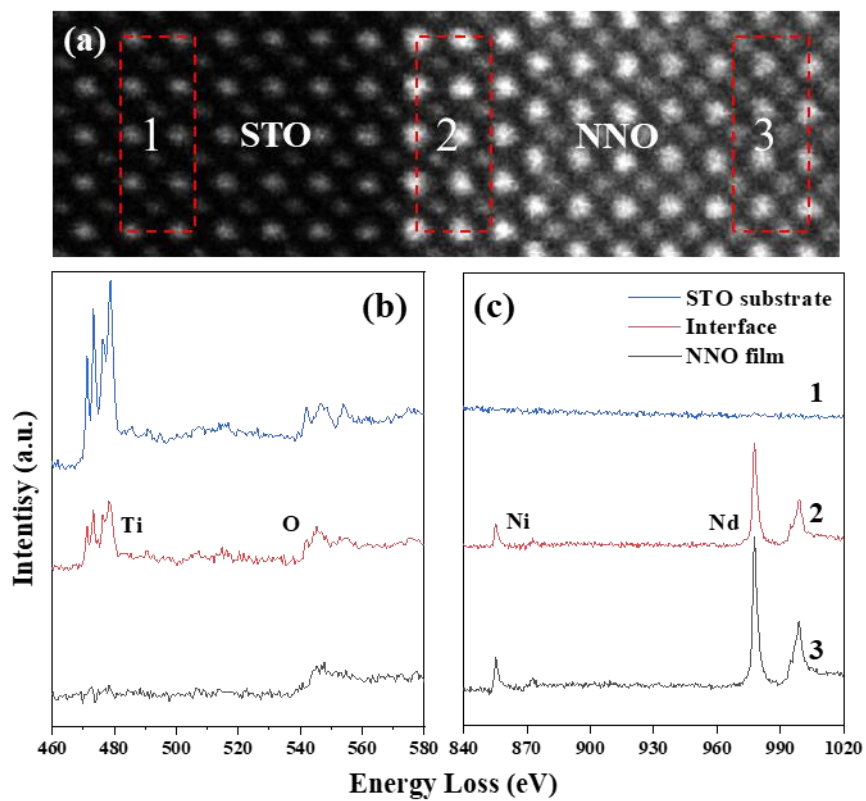


Figure S4. (a) HAADF image used for EELS data acquisition. (b) and (c) EELS spectra extracted from the red dashed boxes in the HAADF image.