Supplementary Materials: Synthesis of Chemically Sharp

Interface in NdNiO₃/SrTiO₃ Heterostructures

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Fig. S1. (a) Schematic crystal structure of the NdNiO₃ observed along [100] direction. **(b)** RHEED patterns along [110] orientation of NdNiO₃ samples with different interface conditions.



Fig. S2. (a) XRD 2θ - ω patterns taken along the [00/] direction of NdNiO₂ films with different interface conditions. **(b)** Temperature-dependent resistivity of the corresponding samples. The resistivity of 0.5ML sample was divided by 10⁴ for clarity and the resistivity of 0ML sample runs out of the measurement limit.