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Electronic and magnetic structure of ultra-thin film of EuNiO3
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In order to uncover the effect of reduced dimensionality on electronic and magnetic structure of rare earth nickelates series, we have investigate ultra thin film of $EuNiO_3$ (ENO) using hard and soft resonant x-ray scattering. Despite of such small thickness, it exhibits checker board type charge ordering, and E antiferromagnetic transition highlighting bulk-like electronic and magnetic structure can be retained for highly distorted member of $RE\mathrm{NiO}_3$ family. The presence of charge ordering at room temperature also provides opportunity for their use in novel electric field controlled devices.

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