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## Microstructure of LaMO<sub>3</sub> perovskites (M=Ni,Co,Fe)

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We have analyzed the microstructure of LaMO<sub>3</sub> perovskites (M=Ni,Co,Fe), which were synthesized by incipient wetness impregnation of mesoporous carbon spheres and subsequent sintering. In the case of LaNiO<sub>3</sub>, we identified Ruddlesden-Popper shear faults via transmission electron microscopy. We set up a structural model for these defects and fit it to complementary synchrotron and neutron data via Rietveld refinements. Local structure analysis supports the gained results.

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