

Supplementary Materials

Atomic Layer Deposition of GdCoO_3 and $\text{Gd}_{0.9}\text{Ca}_{0.1}\text{CoO}_3$

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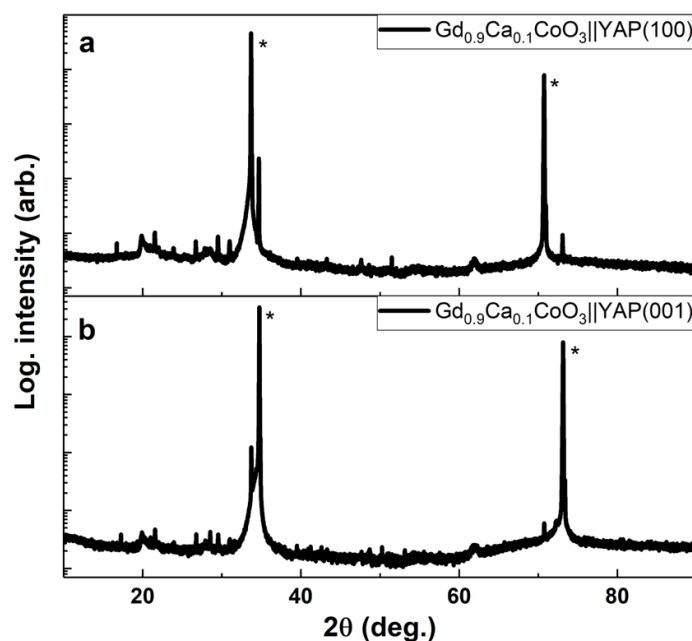


Figure S1. XRD patterns of 30 nm $\text{Gd}_{0.9}\text{Ca}_{0.1}\text{CoO}_3$ films grown on (a) YAP(100) and (b) YAP(001), post-annealed for 30 minutes at 650 °C. Identified Bragg-reflections originating from the substrate are marked with a star.

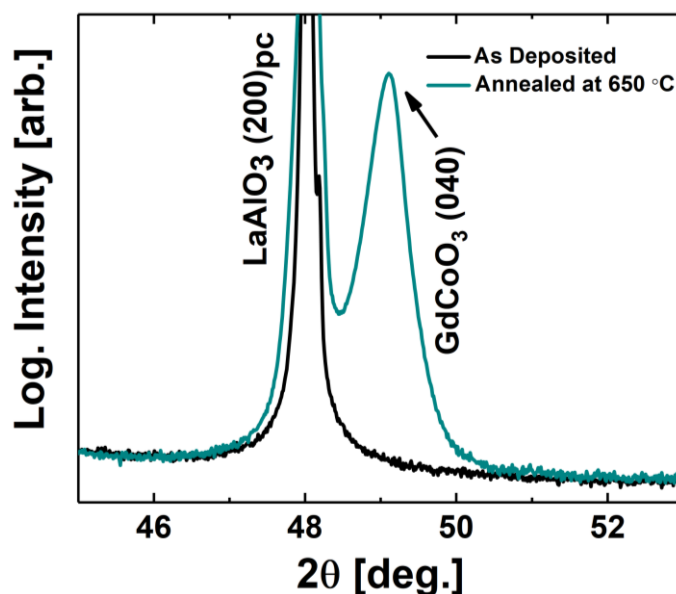


Figure S2. XRD pattern of the GdCoO₃ (040) reflection of as deposited (**black**) and annealed (**green**) 30 nm films grown on LAO (100)_{pc}, used for Scherrer analysis of crystallite size.

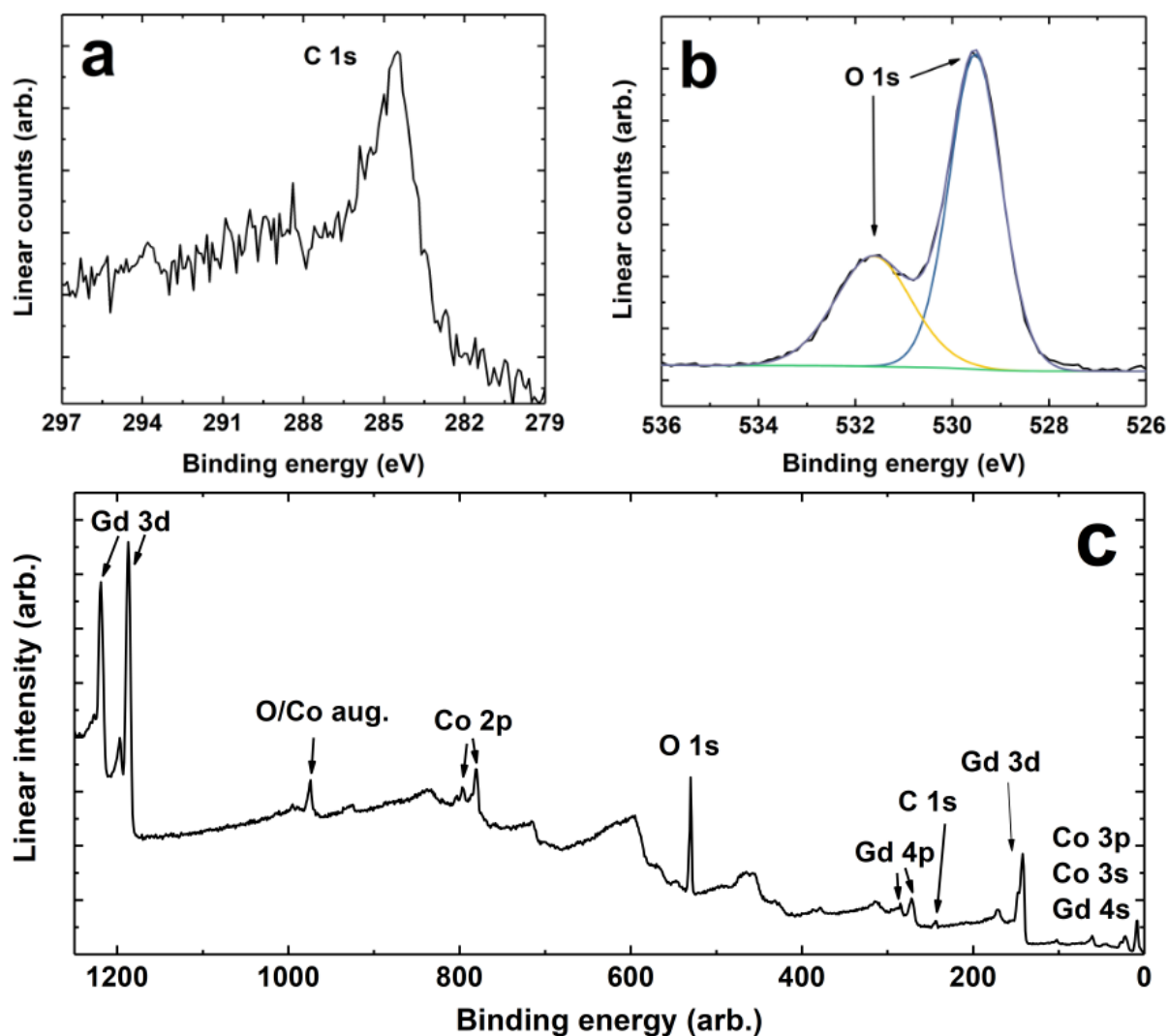


Figure S3. (a) XPS of C 1s, showing very weak signal pointing towards a very low carbon content. The carbon peak seems to stem from one species at 284.8 eV, attributed to adventitious carbon. (b) XPS of O 1s, showing a split peak which is attributed to the two distinct oxygen species in the GdCoO₃ structure. It is possible that some O is bonded to C on the surface as carbonate. (c) Survey spectra showing identification of Gd, Co, O and carbon species.

