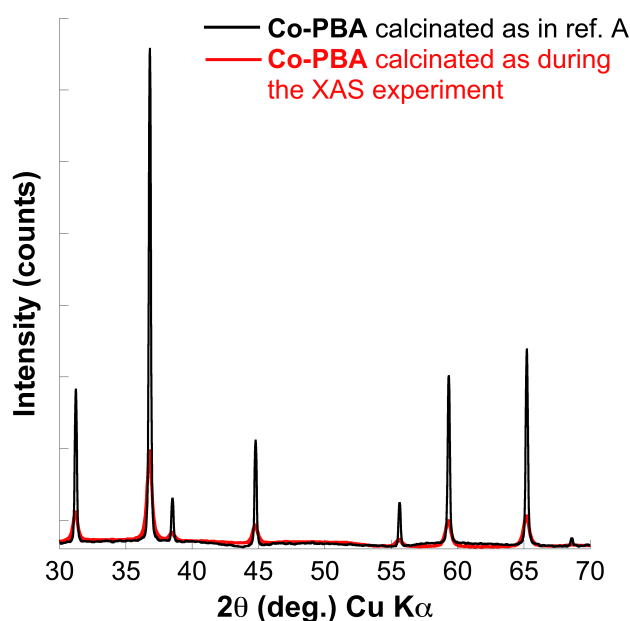


## In situ site-selective transition metal K-edge XAS: A powerful probe of the transformation of mixed-valence compounds

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### Supplementary information : X-ray diffraction pattern of the final phase

A Co-PBA sample was calcinated in the laboratory following the XAS measurements with rigorously the same temperature ramps and dwell times at a fixed temperature. Its XRD pattern and the one of a sample prepared following the calcination procedure (2 hours at 800°C) in ref. [A] is presented in the figure below. The peak positions and their relative intensity are in excellent agreement. The difference in absolute intensity arises from a different cristallinity of the samples that originates from the different final heating temperature (800°C for ref. [A] and 400°C at the ESRF). This is an additional proof that the process followed in situ by XAS resulted in the targeted  $\text{Co}_3\text{O}_4$  phase.



### Reference

[A] V. Trannoy, E. Delahaye, G. Fornasieri, P. Beaunier, A. Bleuzen, *C.R. Chimie*, 2014, **17**, 512-520.