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Fig. S1

The WH plot of the SXRPD data of CFO in the 2θ angles from 10 to 70°. The integral breadth β (obs) was estimated by Le Bail analysis of the observed SXRPD pattern in Fig. 2. Influence of diffractometer on $\beta(\beta(\text{instr}))$ was removed by using the approximation formula: $[\beta(\text{sample})]^n = [\beta(\text{obs})]^n - [\beta(\text{instr})]^{n,1}$ Therein *n* is assumed as 1.5 in this case, because the Le Bail analysis was made by using the pseudo-Voigt function. The SXRPD pattern of the La_{0.9}Ca_{0.1}FeO₃ with high crystallinity investigated using the same diffractometer installed on the BL-4B2 was used for the estimation of the $\beta(\text{instr})$ and its error. From the error of $\beta(\text{instr})$ as well as the slope of Fig. S1, the value of εC was evaluated to be 2.60(12) x 10⁻².

References

1. E.H. Kishi, C.J. Howard, "Applications of Neutron Powder Diffraction", Oxford University Press, New York, 2008, Chap. 9.



