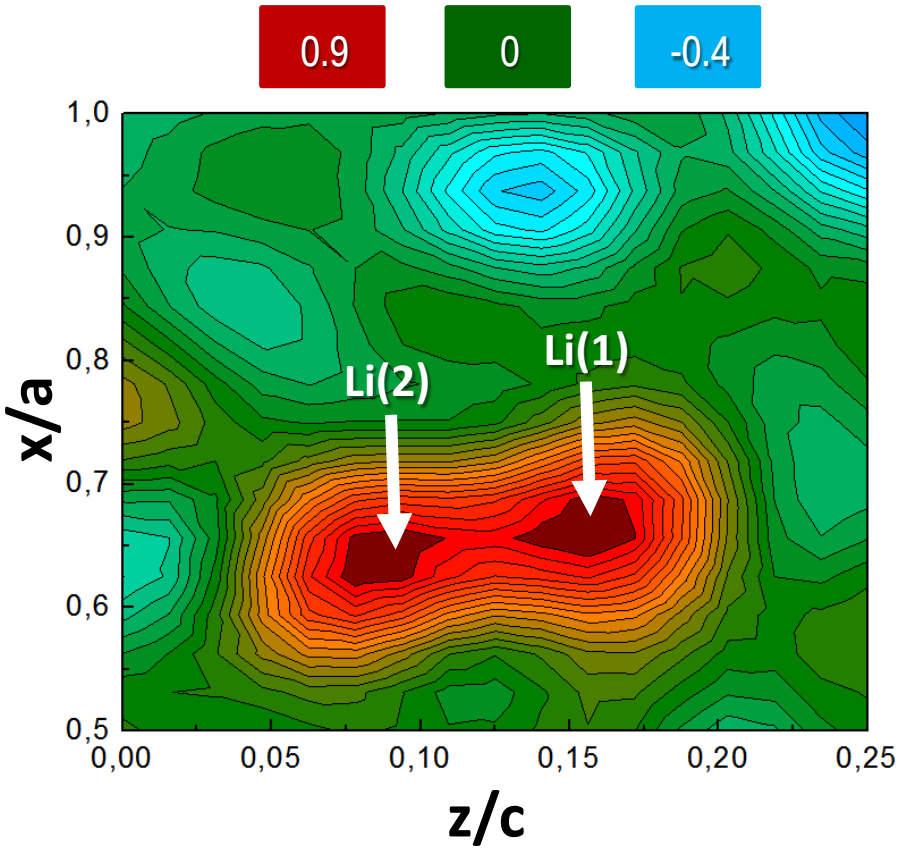
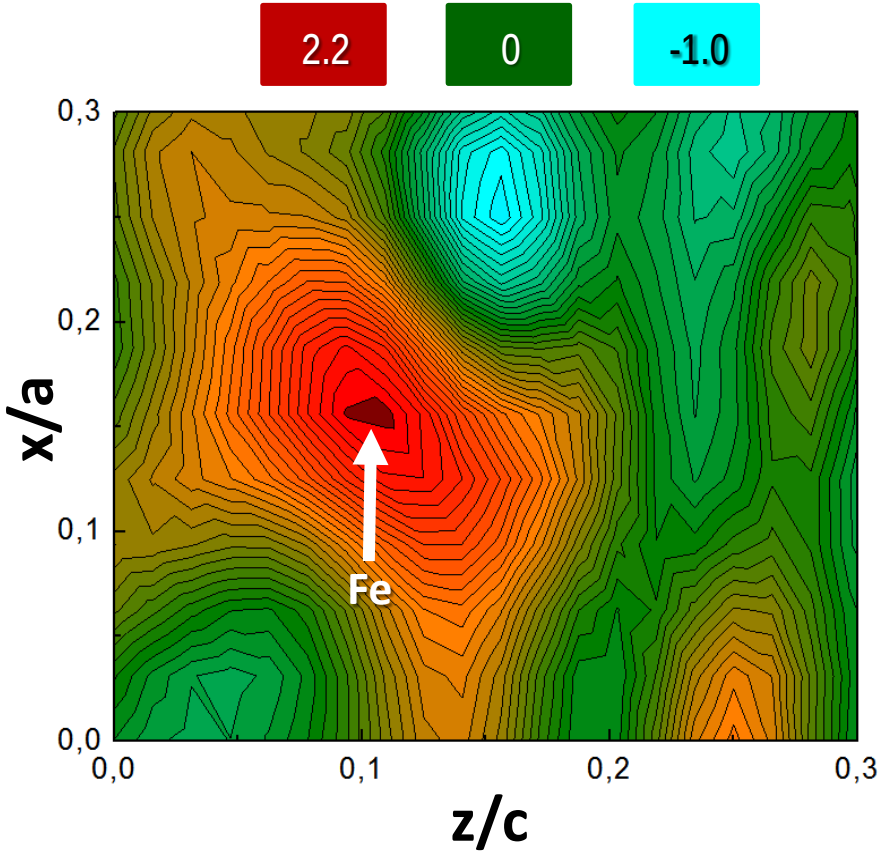
Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A

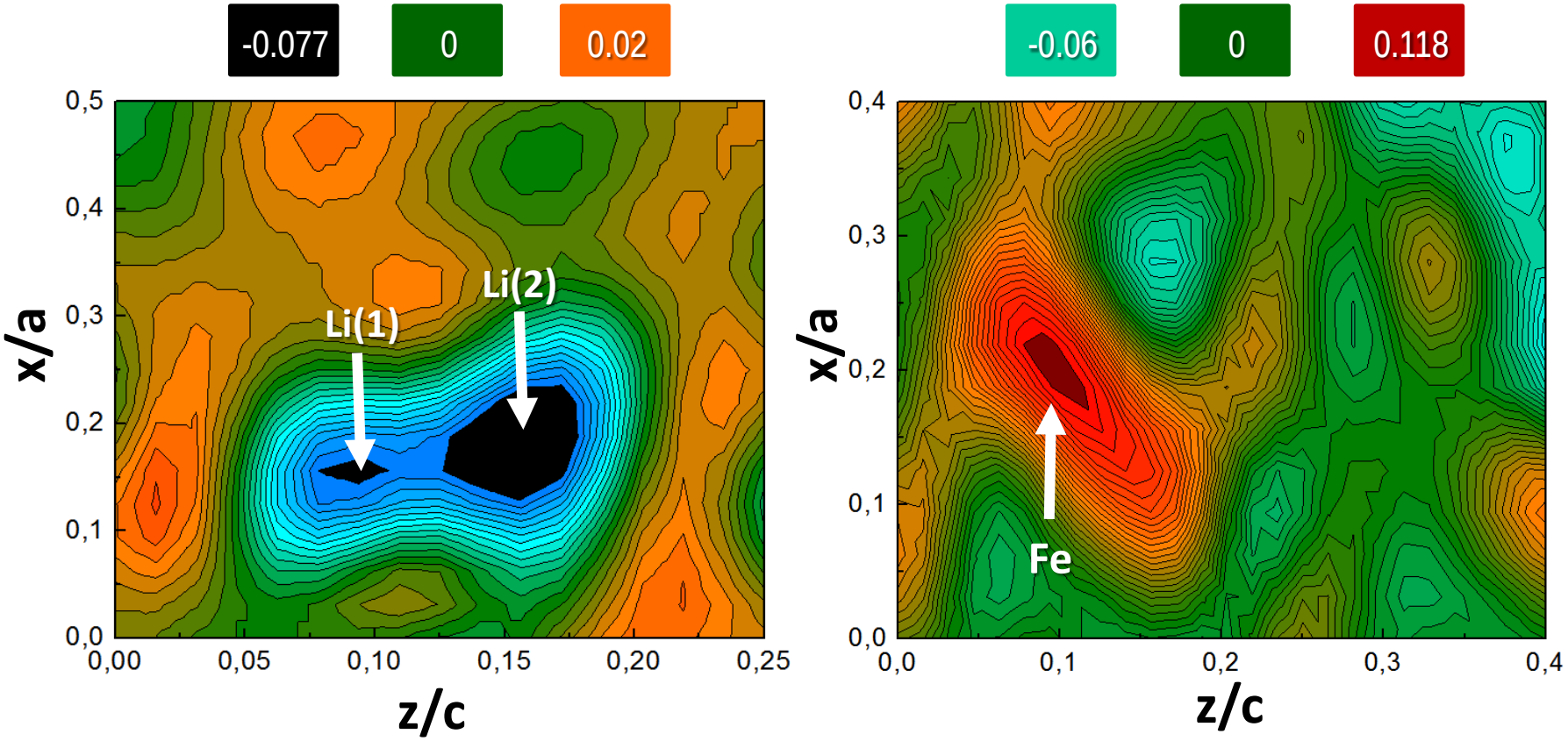
L. Tao et al., fig. S1





Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A

L. Tao et al., fig. S2



L. Tao et al., fig. S3

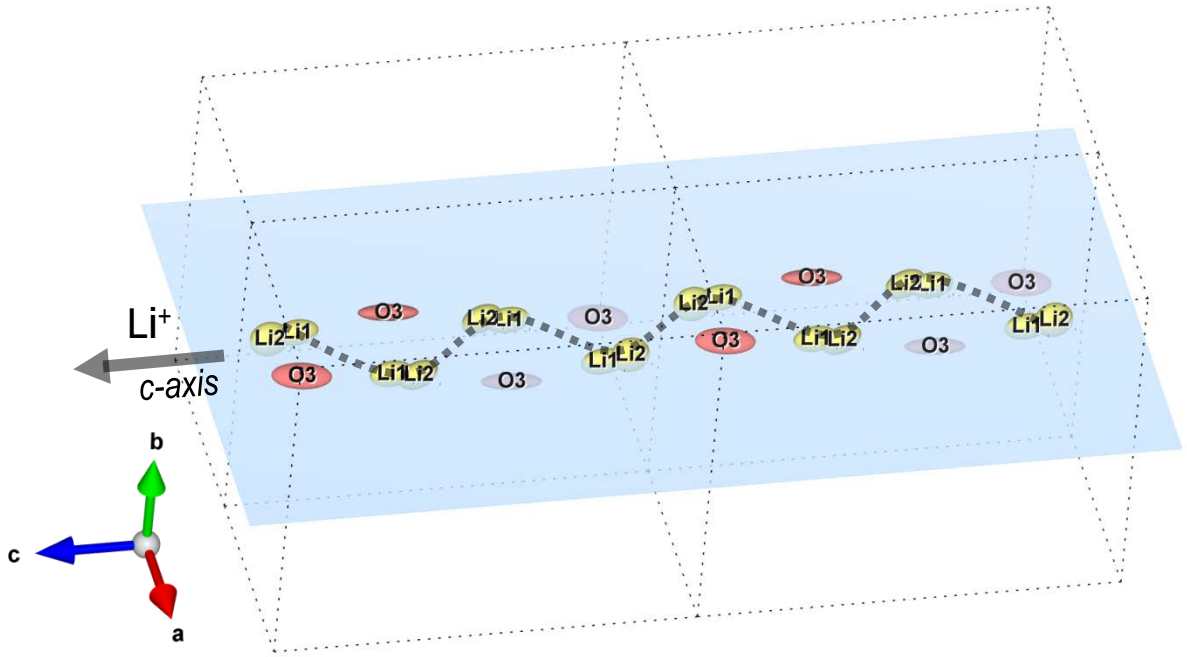
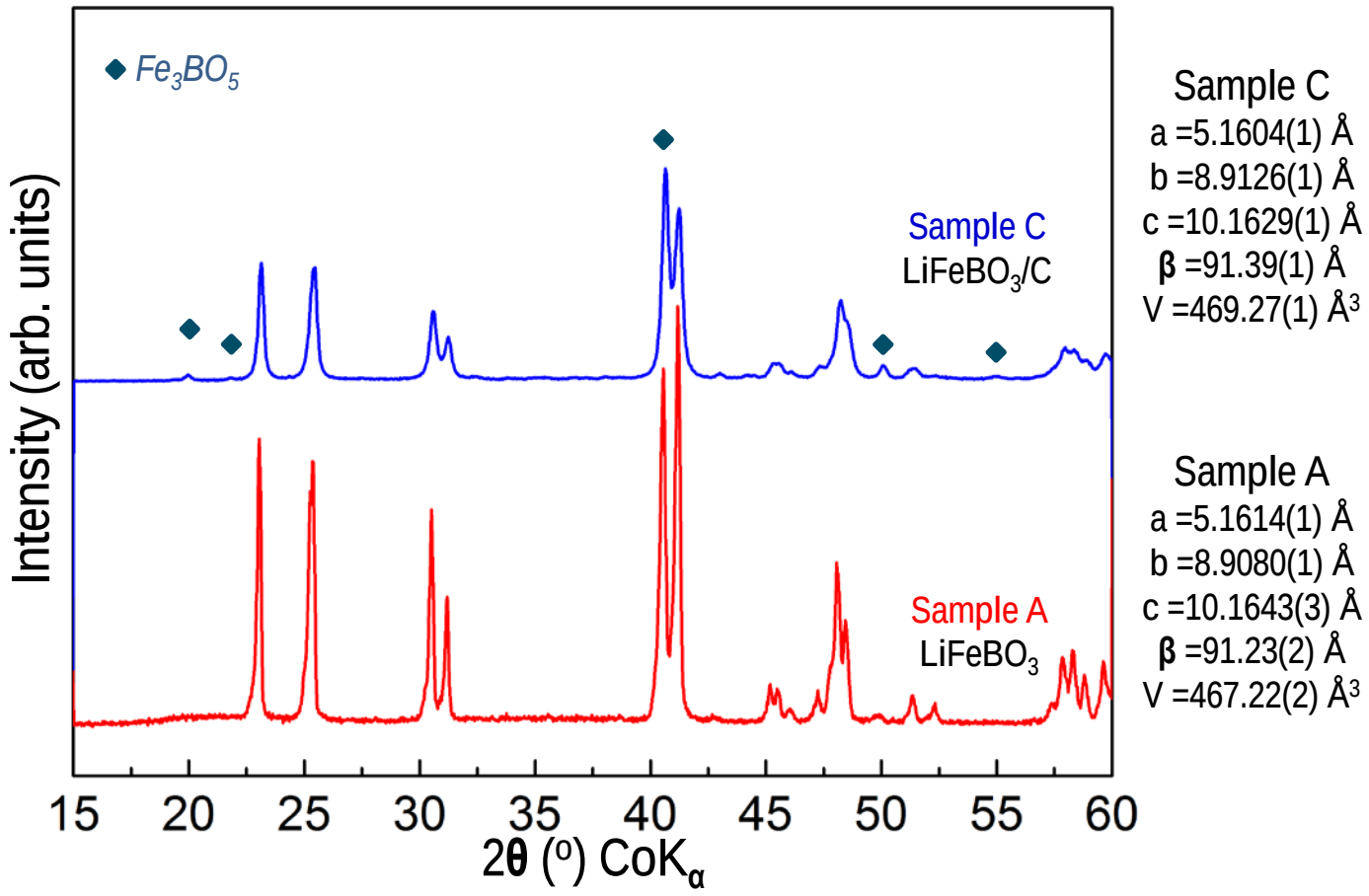


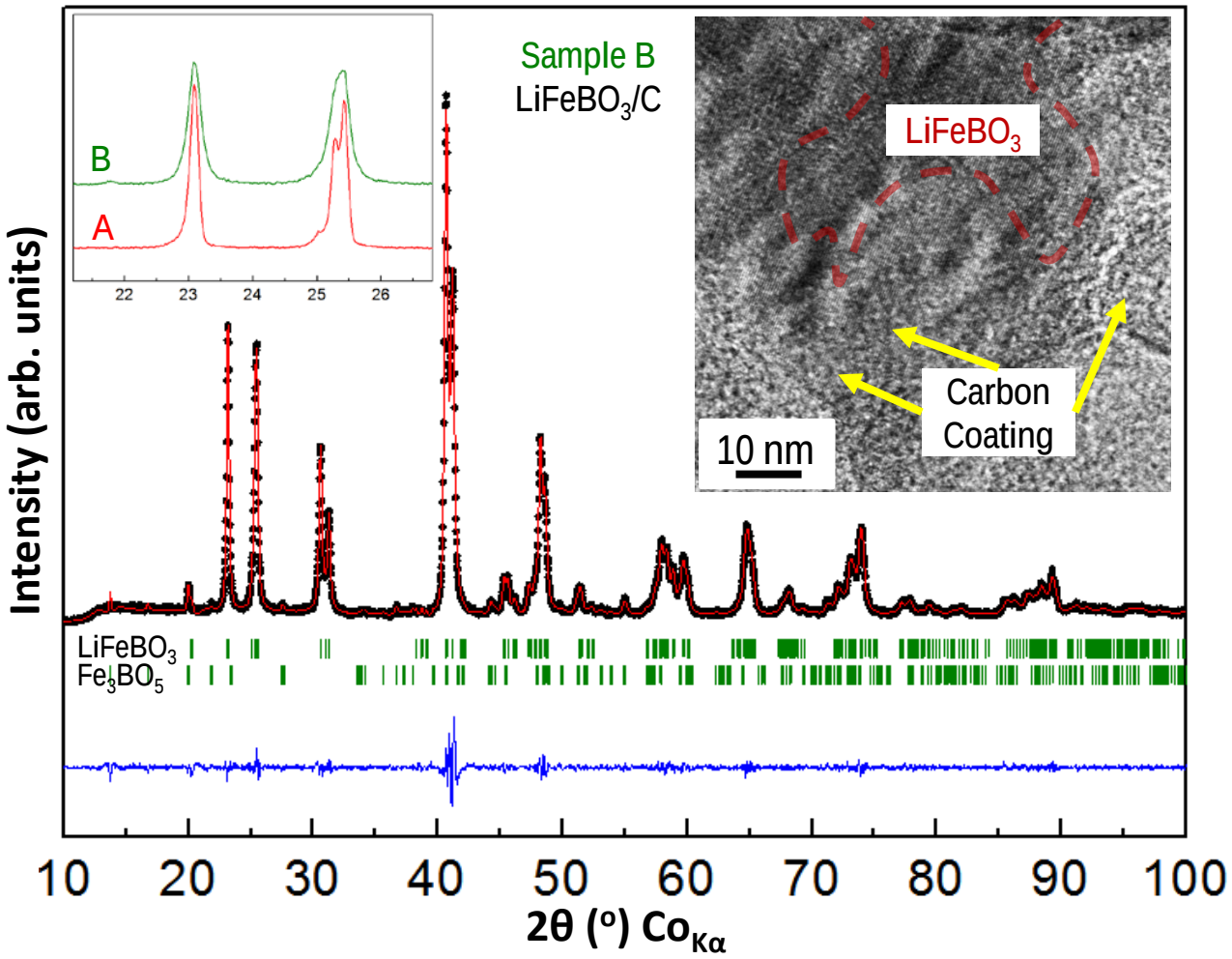
Illustration of the zigzag shaped Li^+ diffusion path along the c-axis (adapted from the cif file of our single crystal XRD refinement). Light blue plane (010) and grey dash line (lithium ions diffusion path) are guides for the eyes

L. Tao et al., fig. S4



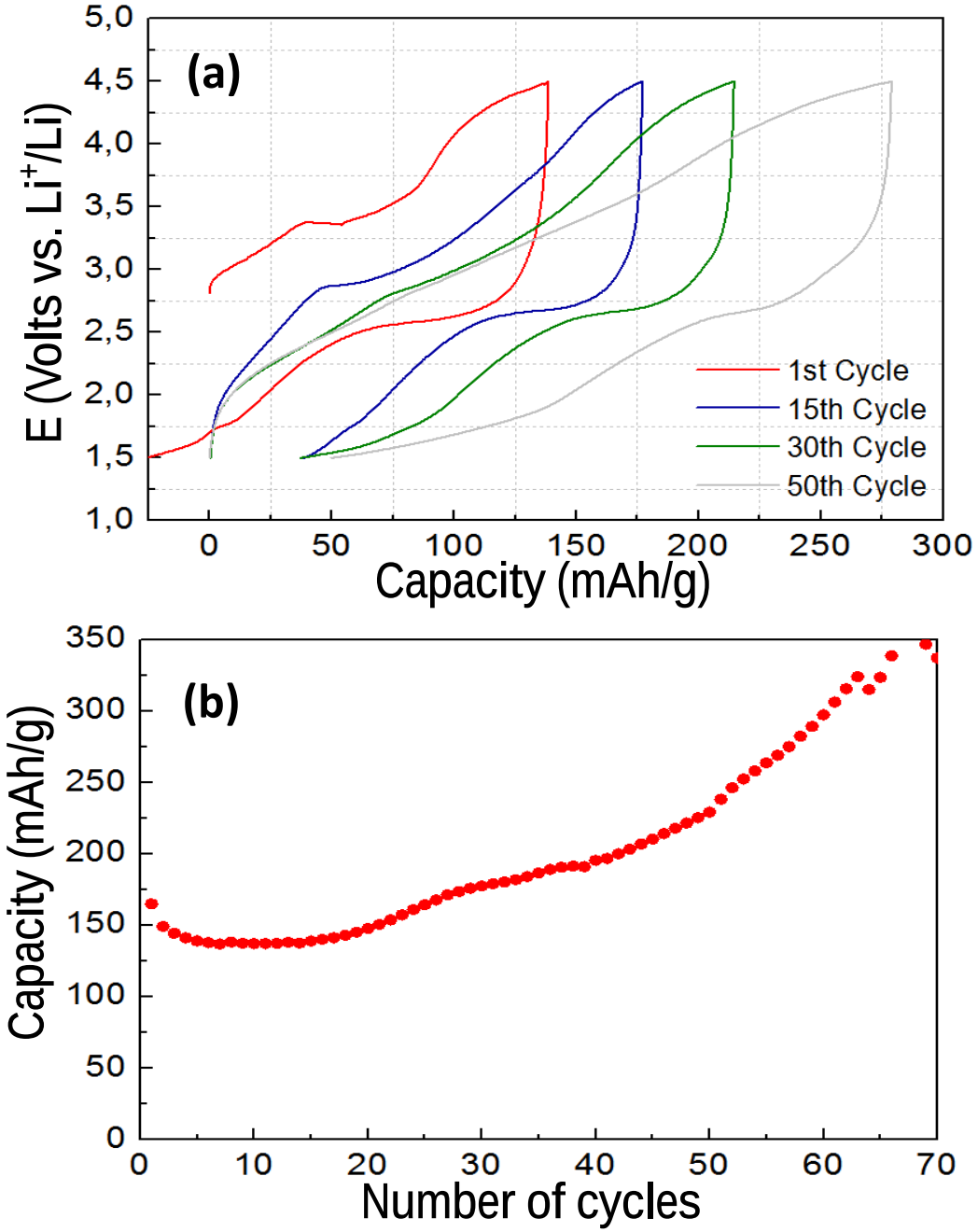
XRD patterns of non-carbon coated $LiFeBO_3$ (sample A) and carbon-coated $LiFeBO_3/C$ (Sample C, ascorbic acid decomposition), recorded with a Bruker D8 diffractometer

L. Tao et al., fig. S5

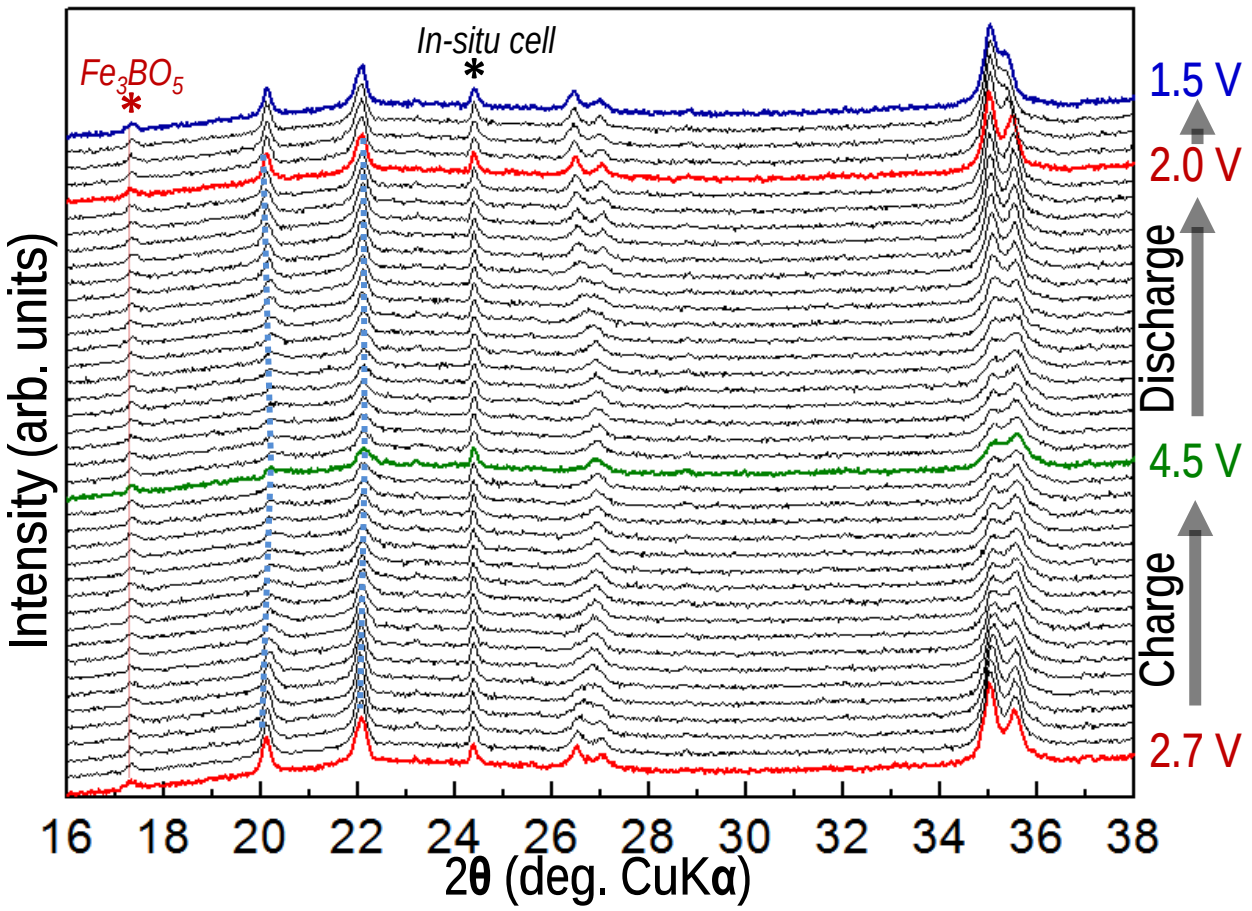


Full-pattern matching refinement conducted on XRD diffraction pattern recorded from $LiFeBO_3$/C sample prepared by self-combustion; (left inset) comparison of partial XRD patterns of self-combustion prepared $LiFBO_3$/C (green) and non-carbon coated $LiFeBO_3$ (red); (right inset) TEM image of sample B (self-combustion), $LiFeBO_3$ grains are surrounded by carbon

L. Tao et al., fig. S6



L. Tao et al., fig. S7



: *in-situ* XRD patterns recorded during battery operation (1st charge to 4.5 V and 1st discharge down to 1.5 V vs. Li^+/Li) with a Bruker D8 diffractometer using the CuK_α radiation. The cell was cycled at C/50 rate, meanwhile XRD patterns were collected every 2 hours for a 10^o-40^o 2θ range. The red and blue dash lines are guided for eyes

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L. Tao et al., fig. S8