

Supplementary Information for:

Observation of memory effects associated with degradation of rechargeable lithium-ion cells using ultrafast surface-scan magnetic resonance imaging.

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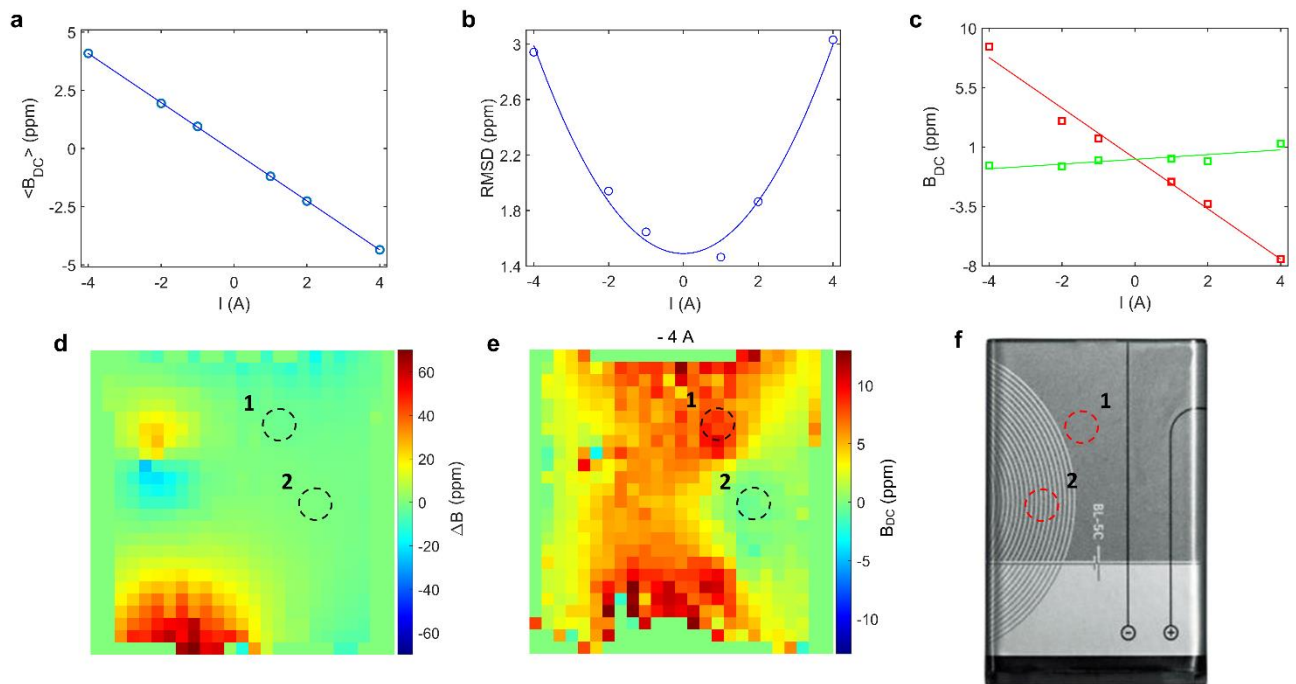


Fig. S.1 (a) Pixel-by-pixel average, $\langle B_{DC} \rangle$, and (b) RMSD of the B_{DC} field distribution of a Nokia BL-5C cell as functions of current (I) in the range from -4 A (discharging) to +4 A (charging). The $\langle B_{DC} \rangle(I)$ data are approximated with a polynomial $P_1 = -1.055 I - 0.14$. The $\text{RMSD}(I)$ data are approximated with a polynomial $P_2 = 0.094 I^2 + 0.0005 I + 1.49$. (c) B_{DC} values at locations “1” (red squares) and “2” (green squares) as indicated in subfigures (d-f). (d) Surface-scan MRI map of magnetic field perturbation $\Delta B = B_{ST} + B_{SoC}$. (e) B_{DC} field distribution produced by the cell (f) discharging at 4 A.