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Lithium and electrolyte distribution in fresh and aged 18650-type lithium-ion batteries

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The results of the current study show the non-destructive quantification of lithium and electrolyte, their spatial distribution and concentration changes induced by cell fatigue. Combined experimental studies including electrochemistry, X-ray computed tomography and neutron diffraction independently reveal a direct correlation between losses of active lithium intercalated in the graphite anode and those of liquid electrolyte averaged over the volume.

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