Supporting Information

Lithium Ion Diffusion in a Metal–Organic Framework Mediated by an Ionic Liquid

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S1

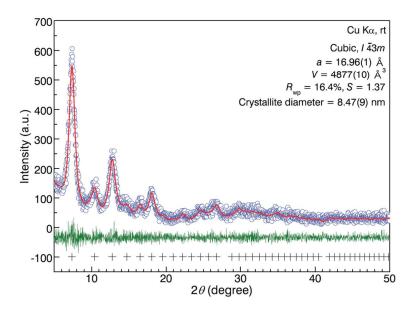


Figure S1. Le Bail analysis for ZIF-8 nanoparticles (Cu- $K\alpha$, rt). Blue open circles, red solid line, green solid line, and black crosses show the observed, calculated, difference profiles, and Bragg peaks, respectively. The obtained lattice parameters, R_{wp} factor goodness-of-fit (*S*), and crystallite diameter are also shown.

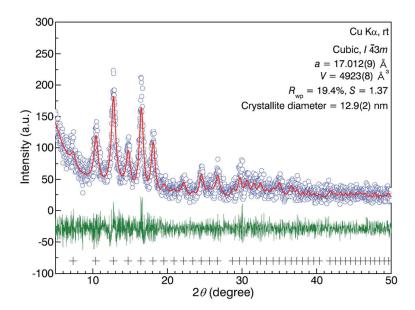


Figure S2. Same as Figure S1 but for ELT@Z₇₅.

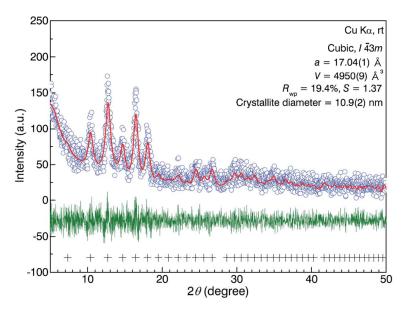


Figure S3. Same as Figure S1 but for ELT@Z₁₀₀.

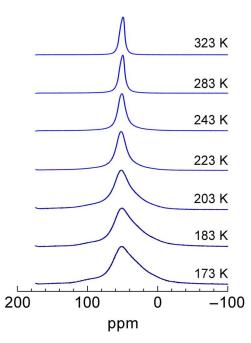


Figure S4. Solid-state static ¹⁹F NMR spectra of **ELT@Z**₇₅. The NMR spectra were obtained stepwise during heating.

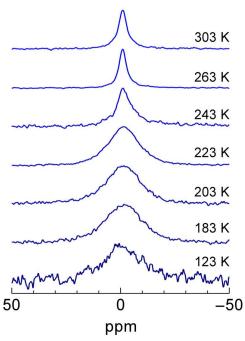


Figure S5. Solid-state static ⁷Li NMR spectra of **ELT@Z**₇₅. The NMR spectra were obtained stepwise during heating.

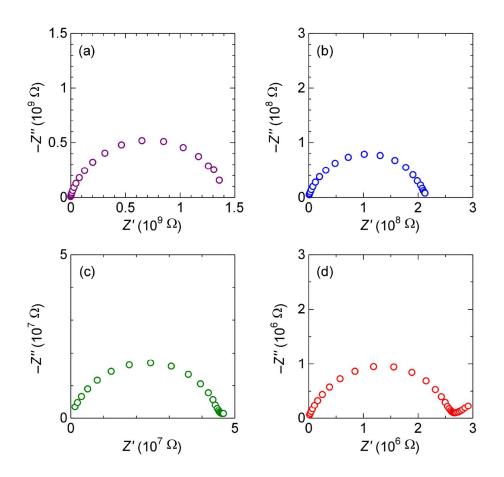


Figure S6. Nyquist plots of ELT@Z₇₅ at 282 K (a), 296 K (b), 309 K (c), and 344 K (d).

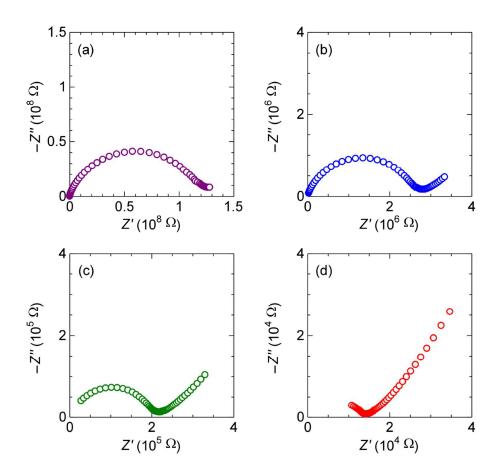


Figure S7. Nyquist plots of **ELT@Z**₁₀₀ at 241 K (a), 268 K (b), 295 K (c), and 343 K (d).