

Femtosecond Laser-Modulated Oxygen Vacancies in LiFePO₄ Thick Electrodes for Rapid Ion Transport

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Supporting Table and Figures

Table S1. Simulate specific parameters.

Figure S1. Variation of diffusion flux-to-stress ratio with groove depth.

Figure S2. Porosity of the D0, D30, D80, and D100 electrodes.

Figure S3. (a) cycle performance at 0.5C and (b) rate performance for L30, L70, L90, and L180.

Table S2. Spin count and spins per milligram (spins/mg) values of D0, D30, D80, and D100 electrode samples.

Table S1. Simulate specific parameters.

Property	Current collector	LFP electrode
Elastic modulus (N m^{-2})	7.23×10^{10} [1]	1.239×10^{11} [2]
Poisson's ratio	0.33 [1]	0.28 [2]
Mass density (kg m^{-3})	2770 [3]	2700 [4]

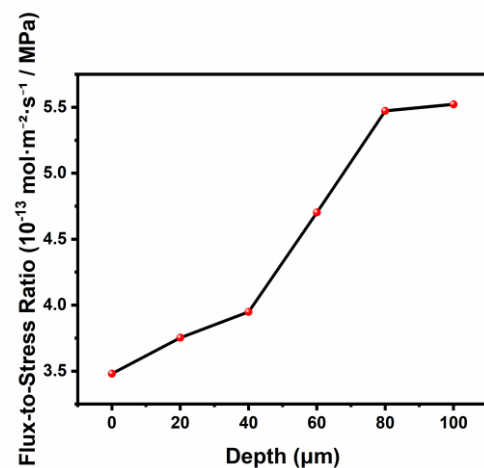


Figure S1. Variation of diffusion flux-to-stress ratio with groove depth.

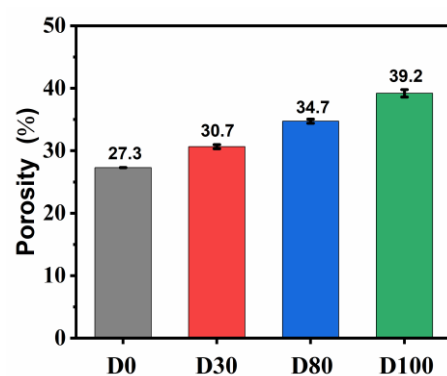


Figure S2. Porosity of the D0, D30, D80, and D100 electrodes.

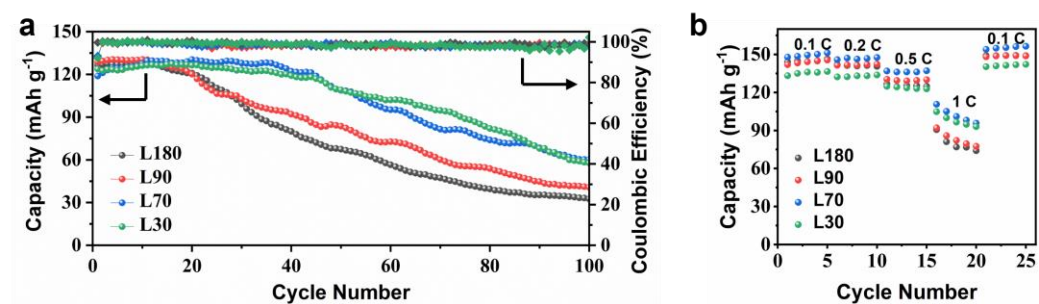


Figure S3. (a) cycle performance at 0.5C and (b) rate performance for L30, L70, L90, and L180.

Table S2. Spin count and spins per milligram (spins/mg) values of D0, D30, D80, and D100 electrode samples.

electrode	Spins	Mass (mg)	Spins/mg
D0	2.96×10^{16}	11.3	2.62×10^{15}
D30	3.77×10^{16}	13.6	2.77×10^{15}
D80	4.24×10^{16}	13.6	3.12×10^{15}
D100	2.51×10^{16}	9.4	2.67×10^{15}

References

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