

Supporting Information for:

Purification-lithiation Collaborative Regeneration of Mixed Graphite/LiFePO₄: Building 2D Li⁺-diffusion Channels towards Enhanced Energy Storage Capabilities

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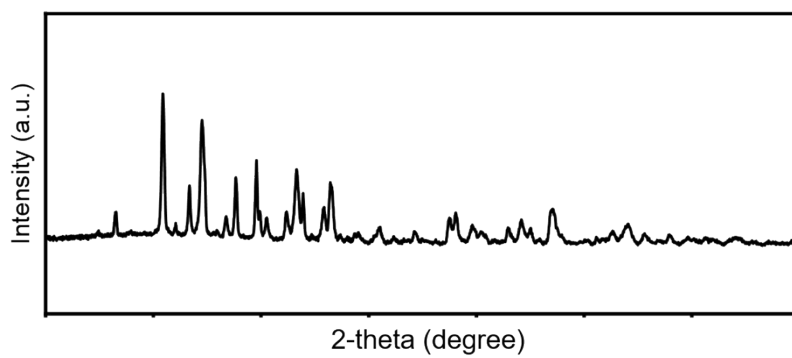


Figure S1. The XRD curves of LFP-3@Fe₂O₃.

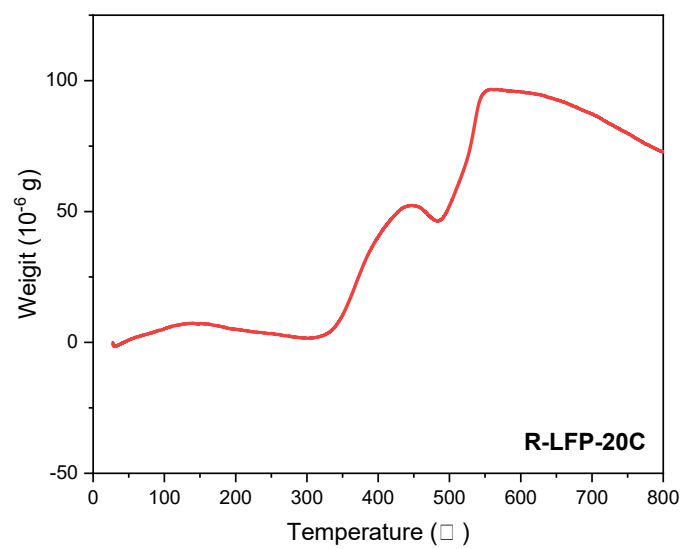


Figure S2. TG results of R-LFP-20C under Air.

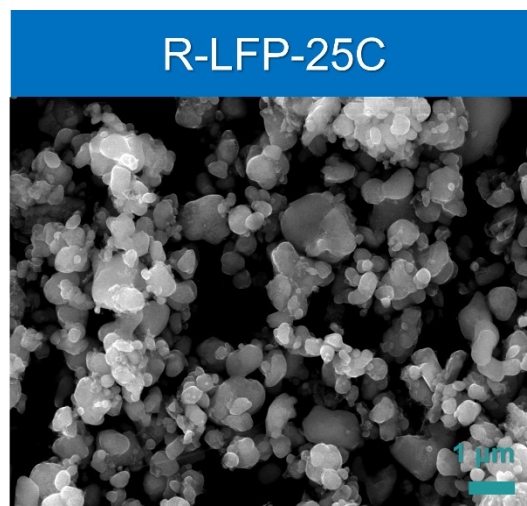
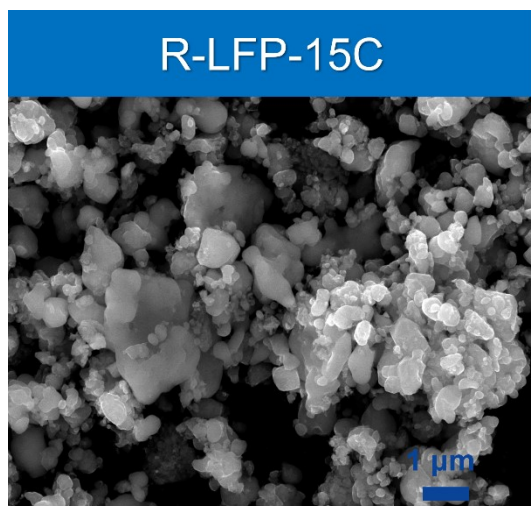


Figure S3. SEM images of R-LFP-15C and R-LFP-25C.

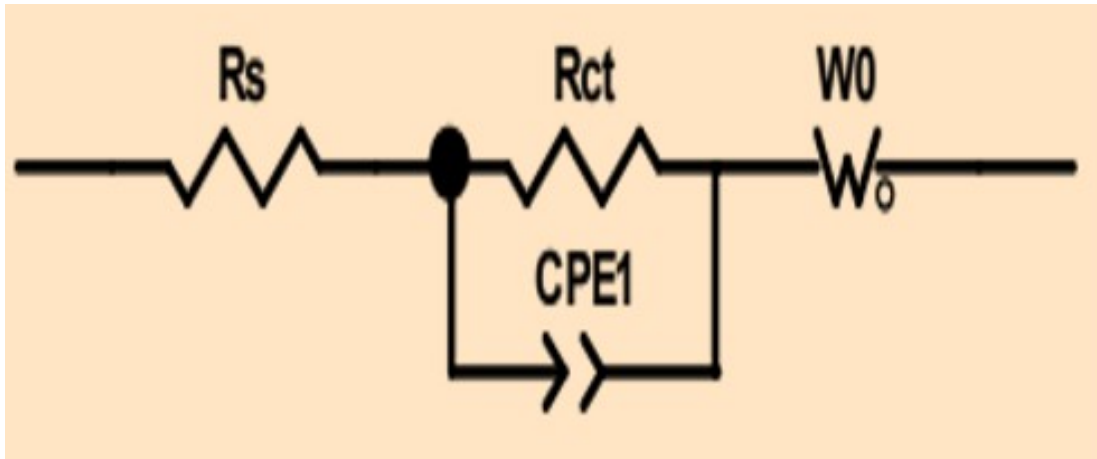


Figure S4. The equivalent circuit model in this work.

Table S1. The comparison of electrochemical performance about regenerated LiFePO₄ samples.

<i>Samples</i>	<i>Capacity (mAh g⁻¹, C)</i>	<i>Capacity retention</i>	<i>Ref.</i>
R-LFP	137.1 at 1.0	100% after 250 cycles at 1.0 C	[46]
R-LFP	136.0 at 0.1	98.6% after 300 cycles at 1.0 C	[31]
R-LFP	129.43 at 0.5	92.96% after 1000 cycles at 1.0 C	[52]
R-LFP	139.0 at 0.2	95% after 100 cycles at 0.2 C	[53]
R-LFP	103.1 at 1.0	97.2% after 300 cycles at 1.0 C	[41]
R-LFP	120.4 at 2.0	97.3 % after 150 cycles at 1.0 C	[55]
R-LFP	123.2 at 2.0	98 % after 250 cycles at 1.0 C	[56]
R-LFP-20C	133.0 at 1.0	100 % after 500 cycles at 5.0 C	This work

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