

Results

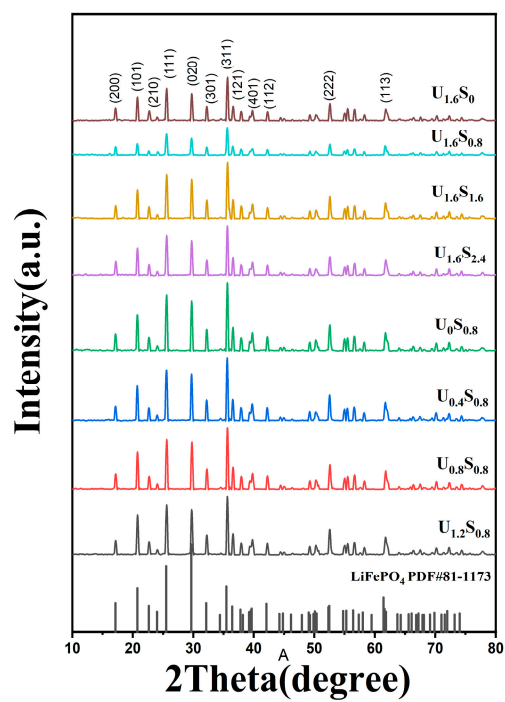


Figure S1. XRD patterns of LiFePO_4 powders.

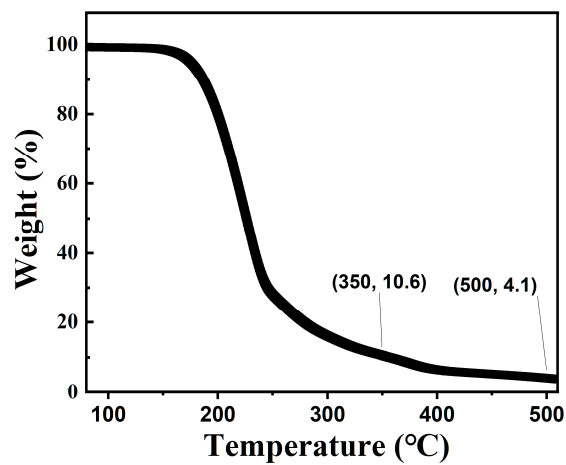


Figure S2. The TG curve of urea/sorbitol mixed fuels in air atmosphere.

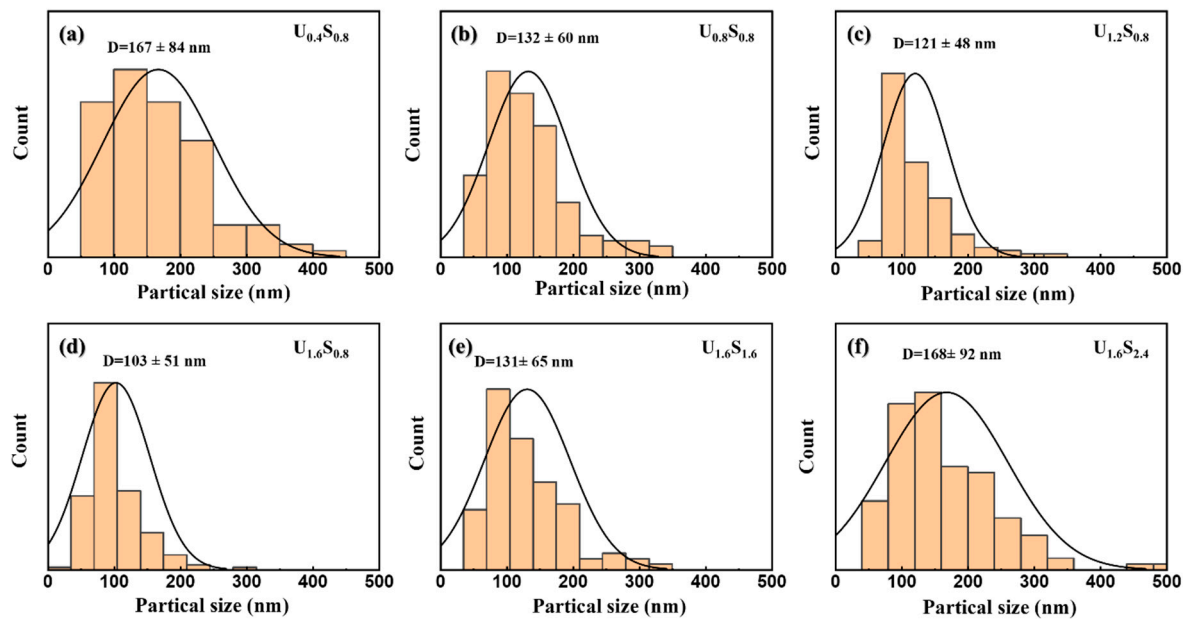


Figure S3. Particle distribution plots of Nano-LiFePO₄/C samples. (a) U_{0.4}S_{0.8}; (b) U_{0.8}S_{0.8}; (c) U_{1.2}S_{0.8}; (d) U_{1.6}S_{0.8}; (e) U_{1.6}S_{1.6}; (f) U_{1.6}S_{2.4}.

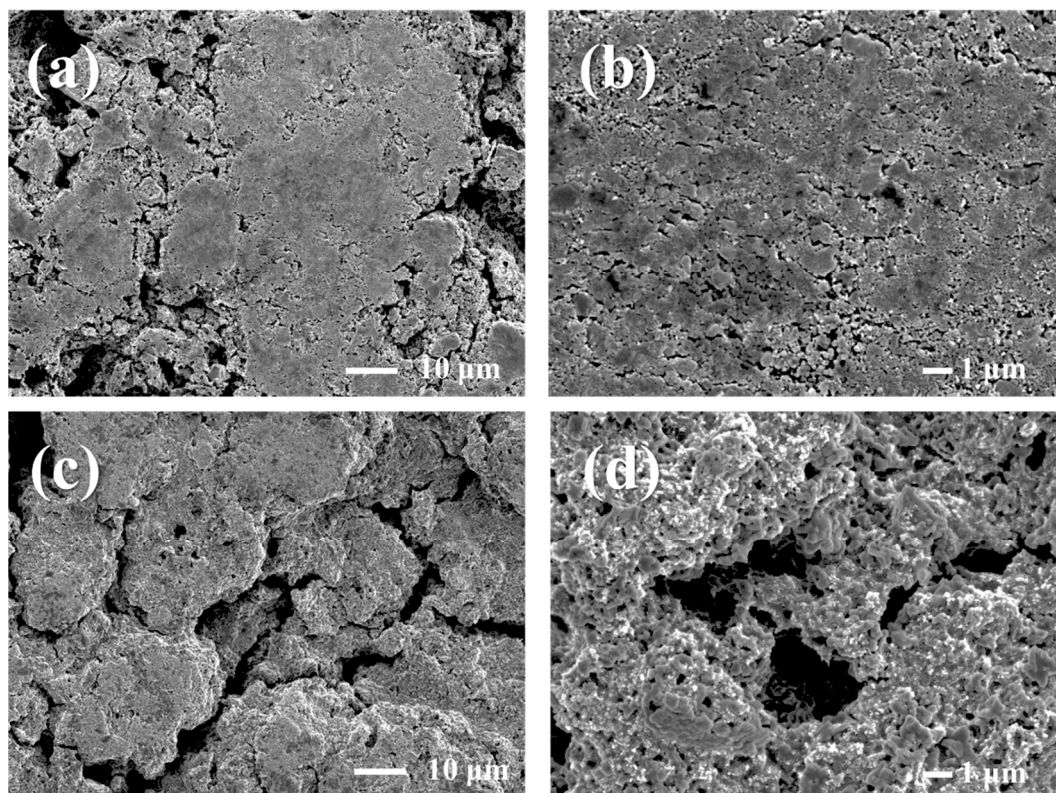


Figure S4. The morphology of U_{1.6}S_{0.8} electrode (a,b) before and (c,d) after cycling at 1C for 220 cycles.

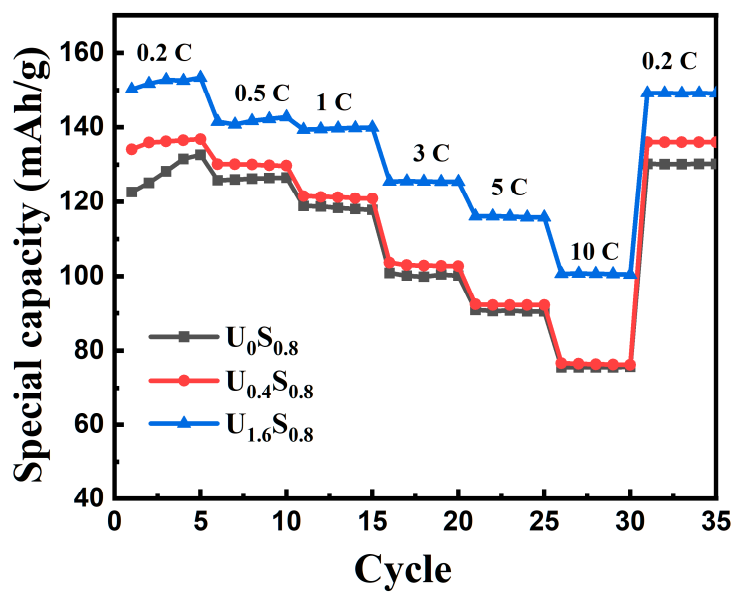


Figure S5. The rate performance of Nano-LiFePO₄/C samples.

Table S1. The electronic conductivity of as-calcined LiFePO₄/C samples.

Sample	Resistivity/ $\Omega \cdot \text{mm}$	Conductivity/ $\text{S} \cdot \text{mm}^{-1}$
U _{0.4} S _{0.8}	1736	5.76×10^{-4}
U _{0.8} S _{0.8}	988	1.01×10^{-3}
U _{1.2} S _{0.8}	591	1.69×10^{-3}
U _{1.6} S _{0.8}	137	7.30×10^{-3}
U _{1.6} S _{1.6}	87	1.15×10^{-2}
U _{1.6} S _{2.4}	95	10.51×10^{-2}

Table S2. Calculation of D_{Li+} of $LiFePO_4/C$ samples.

Samples	$\sigma/\Omega S^{-0.5}$	D_{Li+}/cm^2s^{-1}
$U_{0.4}S_{0.8}$	35	4.60073E-14
$U_{0.8}S_{0.8}$	53	2.00637E-14
$U_{1.2}S_{0.8}$	45	2.78316E-14
$U_{1.6}S_{0.8}$	28	7.18864E-14
$U_{1.6}S_0$	37	4.11679E-14
$U_{1.6}S_{1.6}$	29	6.84225E-14
$U_{1.6}S_{2.4}$	30	6.2621E-14