A Confined Nanocrystal-in-Nanofiber Architecture: Stabilizing High-Entropy Oxide Nanoparticles in Carbon Nanofibers for Superior Lithium Storage

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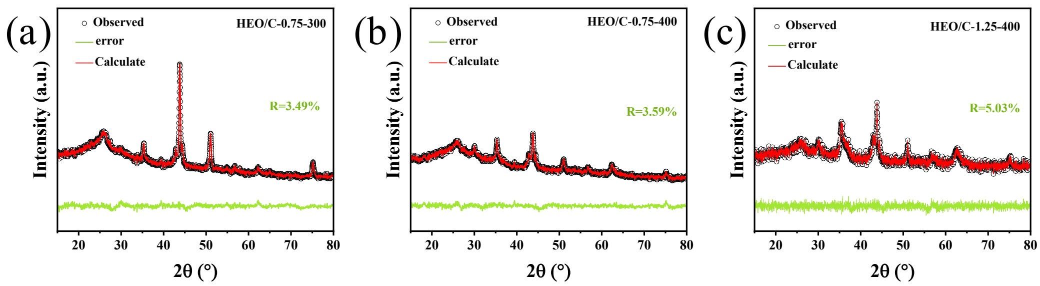

Fig. S1. Rietveld refinement of X-ray diffraction pattern for (a) HEO/C-0.75-300, (b) HEO/C -0.75-400 and (c) HEO/C-1.25-400.

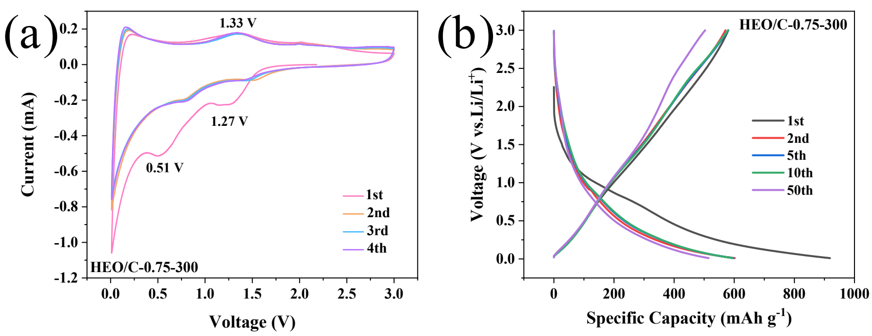

Fig. S2. (a) Cyclic voltammetry (CV) curves of the HEO/C-1.25-300 electrode. (b) Galvanostatic charge/discharge profiles of the HEO/C-0.75-300 electrode at 100 mA g^{-1}.

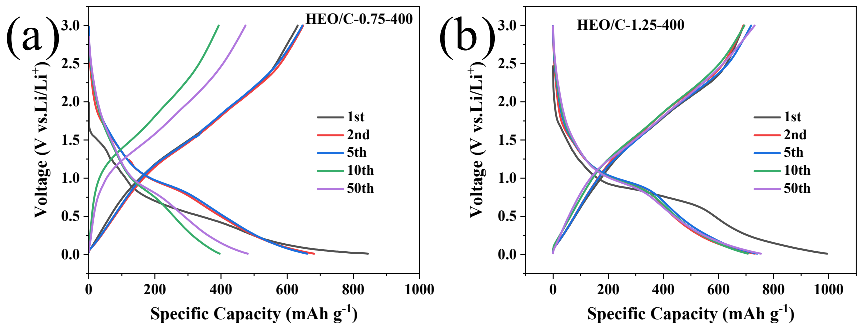

Fig. S3. (a,b) Galvanostatic charge/discharge profiles of the (a) HEO/C-0.75-400 and (b) HEO/C-1.25-400 electrode at 100 mA g^{-1}.

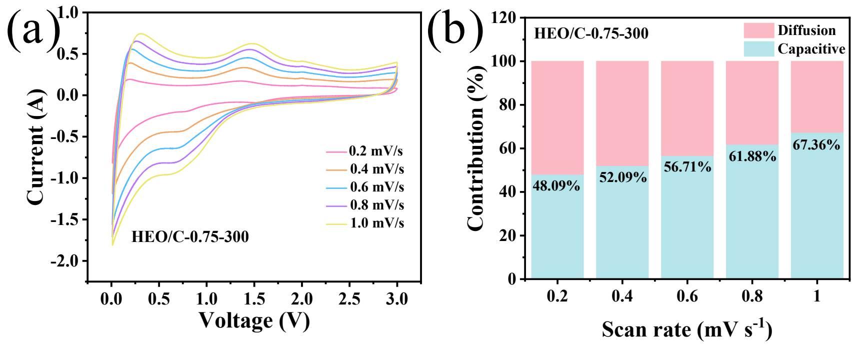

Fig. S4. (a) CV curves and (b) capacitive contribution at different scan rates of HEO/C-0.75-300 electrode.

Table S1. Comparison of the electrochemical energy-storage performance achieved in this study with that of previously published work on different high-entropy oxide anode materials for LIBs.

Materials	Method	Specific Capacity (mA h/g)	Rate Capability (mA h/g)	Ref.
HEO/C-1.25-300	electrospinning and optimized thermal treatment	653.2@100 mA g^{-1}	271.9 @ 1 A g^{-1}	This work
$(MgTiZnNiFe)_3O_4$	Solid-state reaction	424.7 @ 100 mA g^{-1}	93.6 @ 1 A g^{-1}	[1]
$(NiMnCrCoFe)_3O_4$	Hydrothermal	527.9 @ 5 A g^{-1}	568 @ 5 A g^{-1}	[2]
$(CoTiZnNiFe)_3O_4$	Solid-state reaction	674.7@100 mA g^{-1}	150.3 @ 1 A g^{-1}	[1]
$(FeNiCrMnMgAl)_3O_4$	Solid-state reaction	555.79 @ 200 mA g^{-1}	436.11 @ 1 A g^{-1}	[3]
$(CrMnCoNiZn)_3O_4$	Sol–gel	1388 @ 100 mA g^{-1}	96 @ 2 A g^{-1}	[4]

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