Supporting Information

Facile Preparation of Monolithic LiFePO₄/Carbon Composites with Well-Defined Macropores for Li-ion Battery

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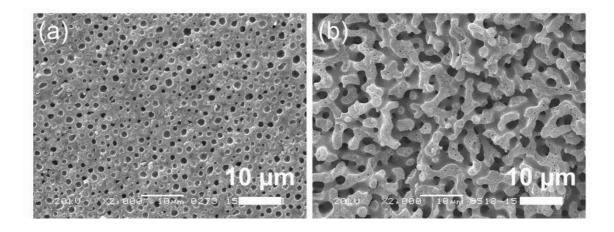


Figure S1 SEM images of the xerogels with varied amount of H_2O ; (a) LFP6.5-16-8-20 and (b) LFP8-16-8-20. The gel morphology changed from the interconnected porous structure to isolated porous structure as decreasing the amount of H_2O .

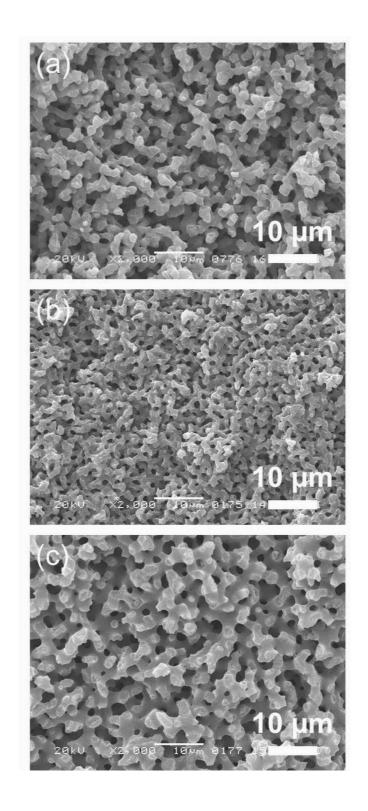


Figure S2 SEM images of the xerogels with well-defined macropores when the different amount of PVP was added; (a) LFP6-14.5-4-22 ($W_{PVP} = 0.40 \text{ g}$), (b) LFP10-17-12-20 ($W_{PVP} = 1.20 \text{ g}$), and (c) LFP12-20-16-28 ($W_{PVP} = 1.60 \text{ g}$).

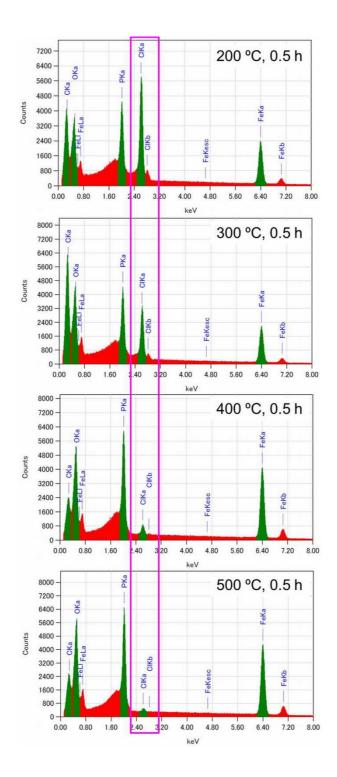


Figure S3 Energy-dispersive X-ray spectroscopy (EDX) analysis results of the samples calcined at different temperatures. The peak of Cl K α dramatically decreases between 200 $^{\circ}$ C and 400 $^{\circ}$ C.

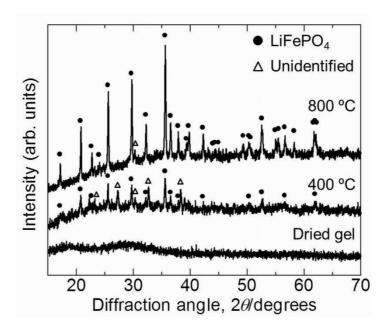


Figure S4 X-ray diffraction patterns of the calcined samples using a green body without polymers (LFP8-16-0-0).

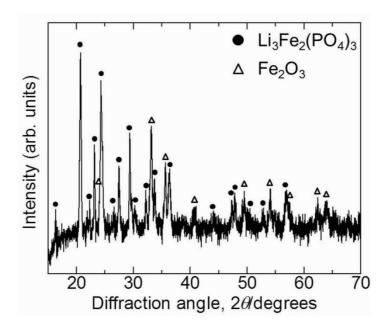


Figure S5 X-ray diffraction patterns of the sample calcined at 800 °C for 30 min under Ar atmosphere followed by heat-treated at 600 °C for 2 h under air atmosphere.