Supporting Information

Promoting power density by cleaving LiCoO₂ into nano-flake structure for high performance supercapacitor

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Fig. S1. (a) The GCD curves for LCO-CP electrode with different mass per unit area from 0.2 g·cm⁻² to 1.5 g·cm⁻² and at a current density of 1.5 A·g⁻¹ in the potential window of 0 to 0.9 V. (b) the GCD curves of bare CP and 0.3 mg·cm⁻² LCO-CP electrode at a current density of 0.45 mA·cm⁻².

Fig. S2. The CV curves of commercial and as-synthesized LCO at the scan rate of 25 $mV \cdot s^{-1}$

Fig. S3. Cyclic performance of the LCO-CP electrode at a constant current density of $6 \text{ A} \cdot \text{g}^{-1}$ for 5000 cycles.

Table S1. The capacitive current (i_c) and Faraday current (i_F) at different scan rates from 10 to 100 mV·s⁻¹.

Video1. 100 green LEDs is lighted for 14 min by three charged supercapacitors in series.



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Fig. S2. The CV curves of commercial and as-synthesized LCO at the scan rate of 25 $mV{\cdot}s^{\text{-}1}$



Fig. S3. Cyclic performance of the LCO-CP electrode at a constant current density of $6 \text{ A} \cdot \text{g}^{-1}$ for 5000 cycles.

Scan rate (V s ⁻¹)	<i>i_c</i> (A g ⁻¹)	<i>i_F</i> (A g ⁻¹)
0.01	0.38	8.13
0.025	0.95	12.85
0.05	1.9	18.18
0.075	2.85	22.27
0.1	3.8	25.71

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