Supplementary Information for

Eco-friendly synthesis of hierarchical ginkgo-derived carbon nanoparticles / NiAl-layered double hydroxide hybrid electrodes toward high-performance supercapacitors

Mingkai Liu,^{*a,b*} Sixin He,^{*a*} Yue-E Miao,^{*a*} Yunpeng Huang,^{*a*} Hengyi Lu,^{*a*} Longsheng Zhang^{*a*} and Tianxi Liu*^{*a,b*}

^a State Key Laboratory of Molecular Engineering of Polymers, Department of Macromolecular Science, and Laboratory of Advanced Materials, Fudan University, Shanghai, 200433, P. R. China. Fax: +86-21-65640293; Tel: +86-21-55664197; E-mail: txliu@fudan.edu.cn.

^b School of Chemistry and Chemical Engineering and Jiangsu Key Laboratory of Green Synthetic Chemistry for Functional Materials, Jiangsu Normal University, Xuzhou 221116, P. R. China.

Energy density (E) and power density (P) have been calculated based on the galvanostatic charge-discharge curves, according to the following equations:

$$E = C_{SP}V^2 / 2$$
$$P = \frac{V^2}{4R_{ESR}m}$$

Where C_{SP} , V, R_{ESR} , and m are the specific capacitance, potential window of discharge, and the mass of the active electrode material.

Metal ions	Content (mg L ⁻¹)
Ni	53.5
Al	19.8

Table S1. ICP results of metal ions contents in the NiAl-LDHs.



Fig. S1 Nitrogen adsorption-desorption isotherm of pure CP materials without activation of KOH.



Fig. S2 CV curves at various scan rates from 10 to 100 mV s⁻¹ (a) and galvanostatic charge-discharge curves at current densities of 1, 2, 5, 10 A g⁻¹ for sample of non-activated CP materials loaded with same content of NiAl-LDHs as that of sample CP/LDH-5.



Fig. S3 Galvanostatic charge-discharge curves at current densities of 1, 2, 5, 10 A/g for sample CP/LDH-5.



Fig. S4 Ragone plots of energy density *versus* power density for the CP/LDH-5 sample acting as active electrode material.