Supplementary Information: Enhanced Electrochemical Performance of Lanthanum Doped $Li_4Ti_5O_{12}$ Nanoflakes Synthesized via Hydrothermal Route for Supercapacitor Applications

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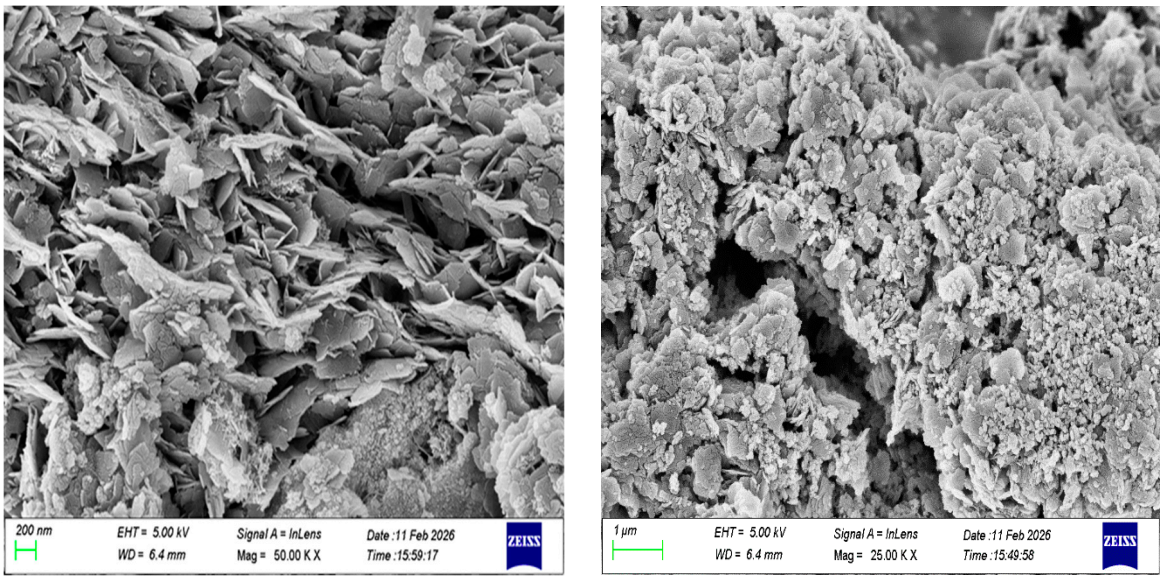


Figure S1. SEM images for $Li_4Ti_{4.94}La_{0.06}O_{12}$.

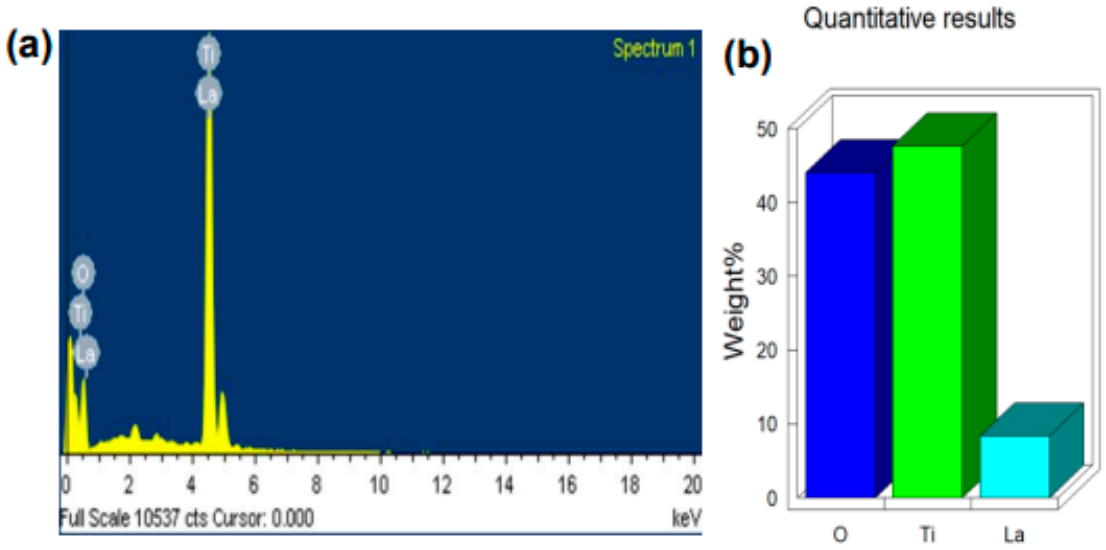


Figure S2. EDX analysis of $Li_4Ti_{4.94}La_{0.06}O_{12}$ nanoflakes: (**a**) XPS spectrum and (**b**) quantitative diagram.

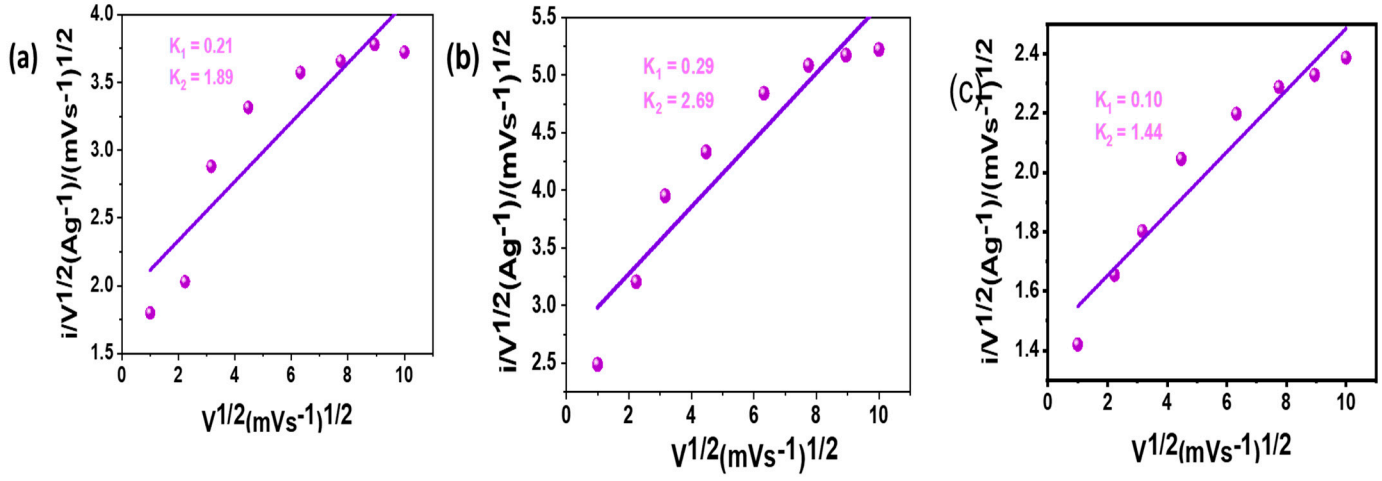


Figure S3. Log(*I*) vs log(ν) plots illustrating mixed diffusion- and capacitive-controlled charge storage behavior, accompanied by extracted kinetic parameters (k_1 and k_2).

Table S1. EDX analysis (weight and atomic %) of $Li_4Ti_{4.94}La_{0.06}O_{12}$ nanoflakes.

Element	Weight %	Atomic %
O K	40.58	71.24
Ti K	43.60	25.56
La L	15.82	3.20

Table S2. Analysis of the capacitance retention at different current densities.

Current density (A g^{-1})	Rate capabilities (%) ($Li_4Ti_{5-x}La_xO_{12}$)		
	x = 0.02	x = 0.04	x = 0.06
1	100	100	100
2	72.78	86.76	79.13
3	62.07	65.07	68.11
4	54.12	60.08	50.39
5	50.76	51.62	42.12
6	45.56	48.37	33.46