## **Electronic Supplementary Information**

## Ni<sup>3+</sup> doped cobalt-nickel layered double hydroxides as high- performance electrode material for supercapacitors

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Figure S1 Laser-assisted assembly for Co-Ni-LDHs structure

	- 0	Element	Weight%.	Atomic%.	+
	- - 5-	O Ke	19.820	46.18	-
Və/so		C1.	7.270	7.65	+
	- 🕅	Co Ke	40.08	25.35+	+
		Ni Ke	32.82+	20.83+	+
		Totals.	100.00	100.00+3	4
	0- 0 5 10 15	20	<b>1 · · · · 1 · ·</b> 25 30	35 ke	I V

Figure S2 EDX spectrum and the table of corresponding elements calculation of  $Co_{0.55}Ni_{0.45}$ -LDHs



Figure S3 XPS spectra of Co<sub>0.55</sub>Ni<sub>0.45</sub>-LDHs (a) survey, (b) O 1s 2p



Figure S4 The specific capacitance retention of  $\mathrm{Co}_{0.55}\mathrm{Ni}_{0.45}\text{-}\mathrm{LDHs}.$