

SUPPLEMENTARY MATERIALS

Modification of layered cathodes of sodium-ion batteries with conducting polymers

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Table S1. Results of the Rietveld analysis of powder X-ray diffraction data of the original NFM sample

Phase name	Hexagonal P2
Space group	P6 ₃ /mmc
R _{Bragg}	2.550
R _{wp}	16.17
<i>a</i> (Å)	2.90419(22)
<i>c</i> (Å)	11.16592(91)
Cell Volume (Å ³)	81.561(17)
Crystallite Size	229(39)
Strain ϵ_0	0.050(52)
Preferred Orientation ([0 0 1])	0.9884(83)

Site	Atom	x	y	z	Occ	Beq
2a	Mn	0.00000	0.00000	0.00000	0.534(5)	-1.319
2a	Ni	0.00000	0.00000	0.00000	0.241(9)	0.3224
2a	Fe	0.00000	0.00000	0.00000	0.238(9)	8.939
2b	Na1	0.00000	0.00000	0.25000	0.31(3)	8.148
2d	Na2	0.33333	0.66667	0.75000	0.37(8)	3.478
4f	O	0.33333	0.66667	0.0917(5)	1.000	0.7921

Table S2. Resistance values calculated from the fitting of the Nyquist plots displayed in Fig. 8 to the equivalent circuit.

Electrode	State	$R_{sl} /$ Ohm·g	$R_{ct} /$ Ohm·g
NFM	OCV	5.07	6.50
	Charge	2.31	10.32
	Discharge	3.60	7.67
NFMb	OCV	4.59	0.97
	Charge	8.79	1.52
	Discharge	29.65	27.48
NFMc	OCV	0.48	2.98
	Charge	1.66	0.24
	Discharge	7.16	2.39
NFMm	OCV	8.46	2.35
	Charge	10.60	14.16
	Discharge	1.74	0.45
NFMp	OCV	11.04	0.86
	Charge	1.54	2.55
	Discharge	6.69	0.65

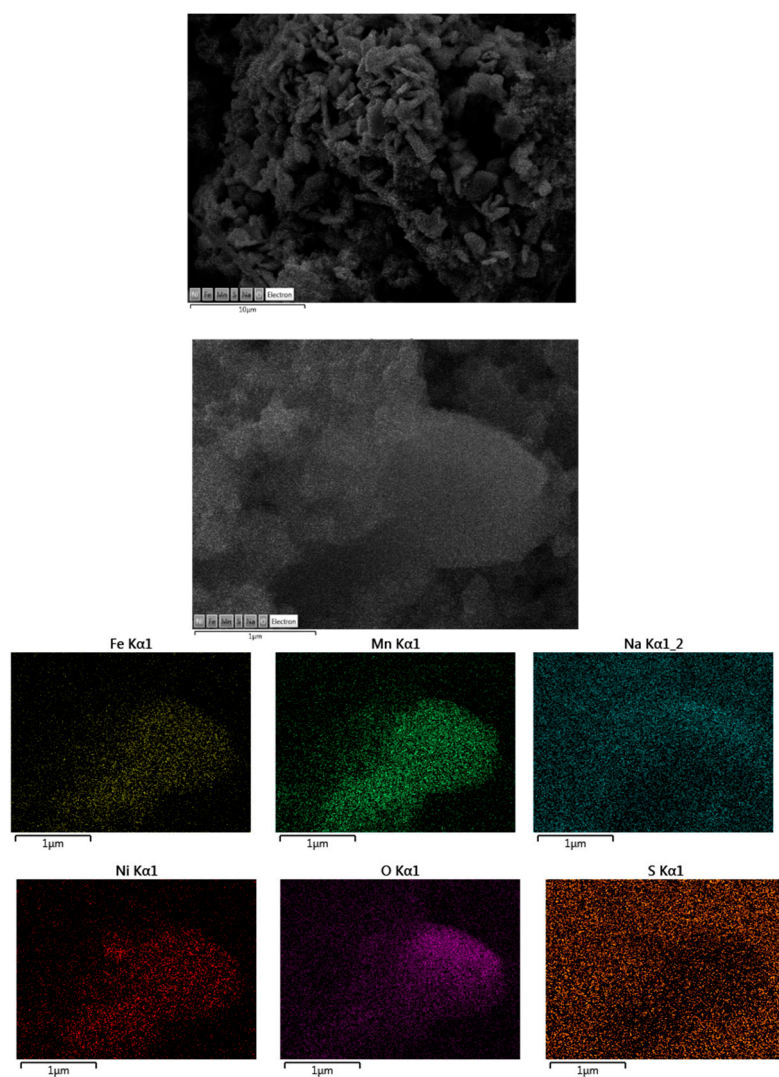


Figure S1. FSEM images and composition maps of an NFMp electrode after the first charge.

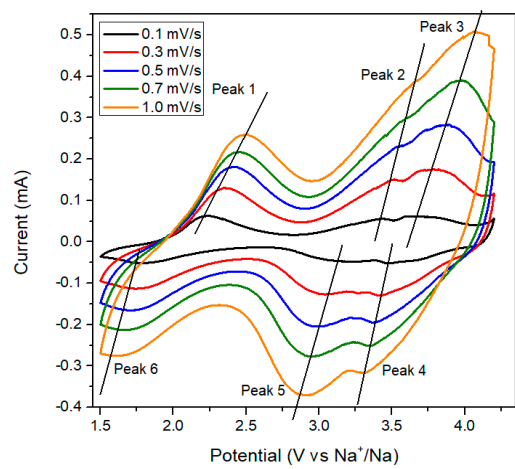


Figure S2. Example of cyclic voltammetry experiment at different scan rates (NFM electrode).