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Article

Fluorine-Doped $LiNi_{0.8}Mn_{0.1}Co_{0.1}O_2$ Cathode for High-Performance Lithium-Ion Batteries

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[Supporting Information]

Table S1. Comparison of d spacing and c lattice constant values of the samples.

	2Theta	d (Å)	c (Å)
NCM	18.78	4.72	1.416
NCMF	18.76	4.73	1.418

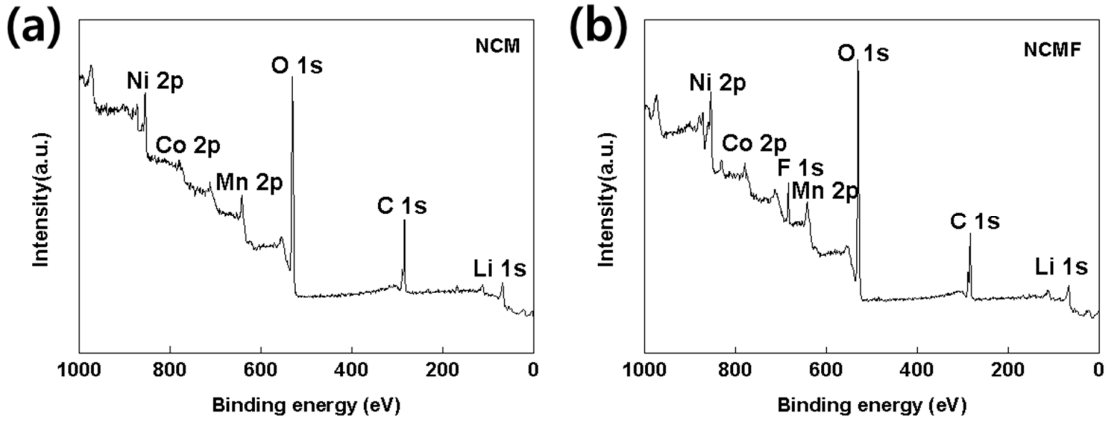


Figure S1. XPS survey spectra of (**a**) NCM and (**b**) NCMF.

Table S2. Area ratios of O vacancies and M-O bonds in NCM and NCMF.

	Oxygen Vacancy	M-O Bond
NCM	1	0.40
NCMF	1	0.22

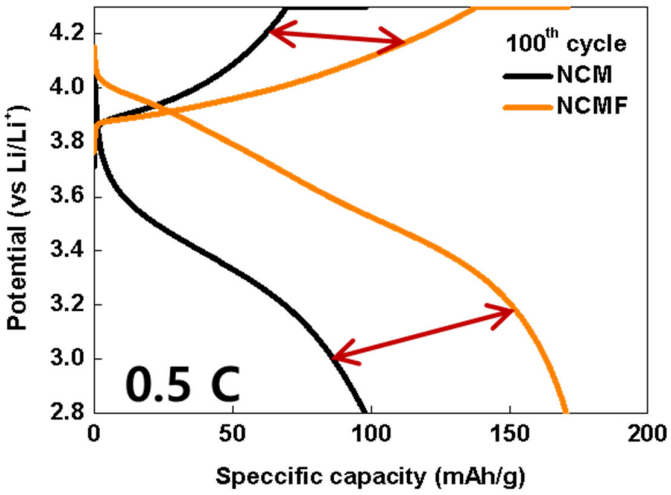


Figure S2. 100th charge/discharge curves of NCM and NCMF at a current density of 100 mA g^{-1} in the potential range of 2.8–4.3 V vs. Li/Li^+ for 100 cycles.

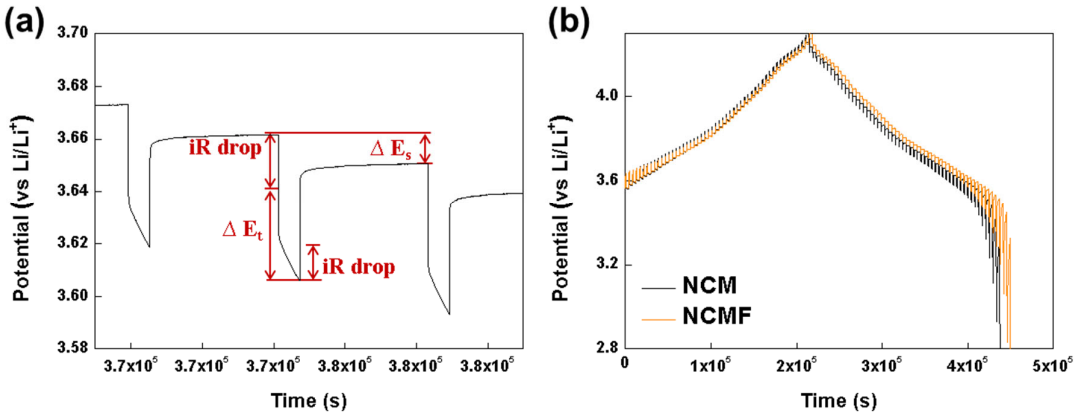


Figure S3. (**a**) Single titration profile of the sample during discharging in GITT. (**b**) Plots of discharge potential of the samples during three discharge cycles in the potential range 2.8–4.3 V vs. Li/Li^+.

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