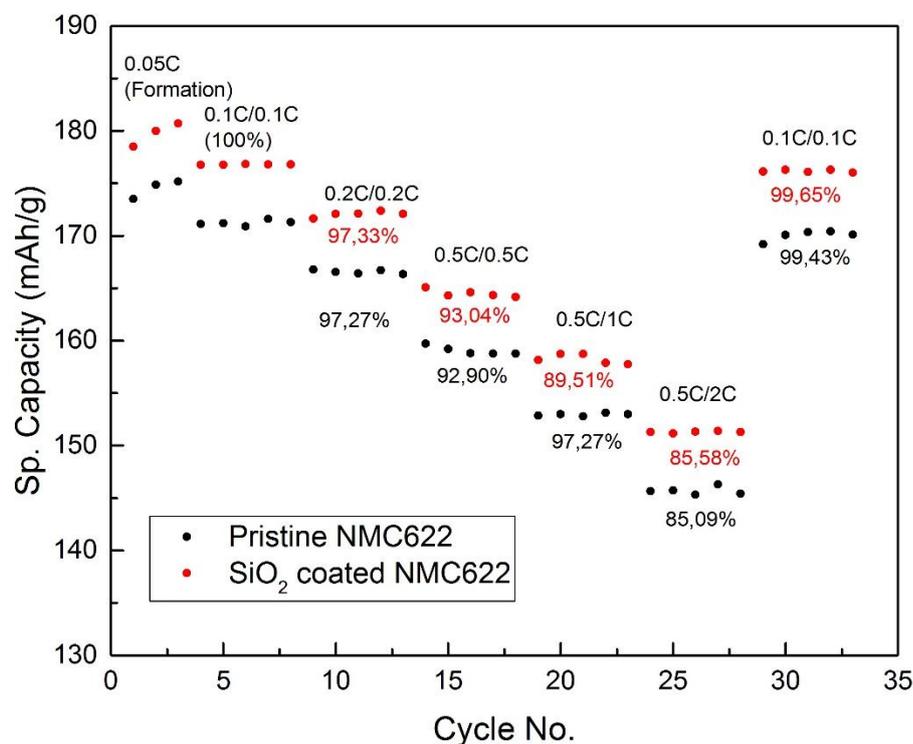


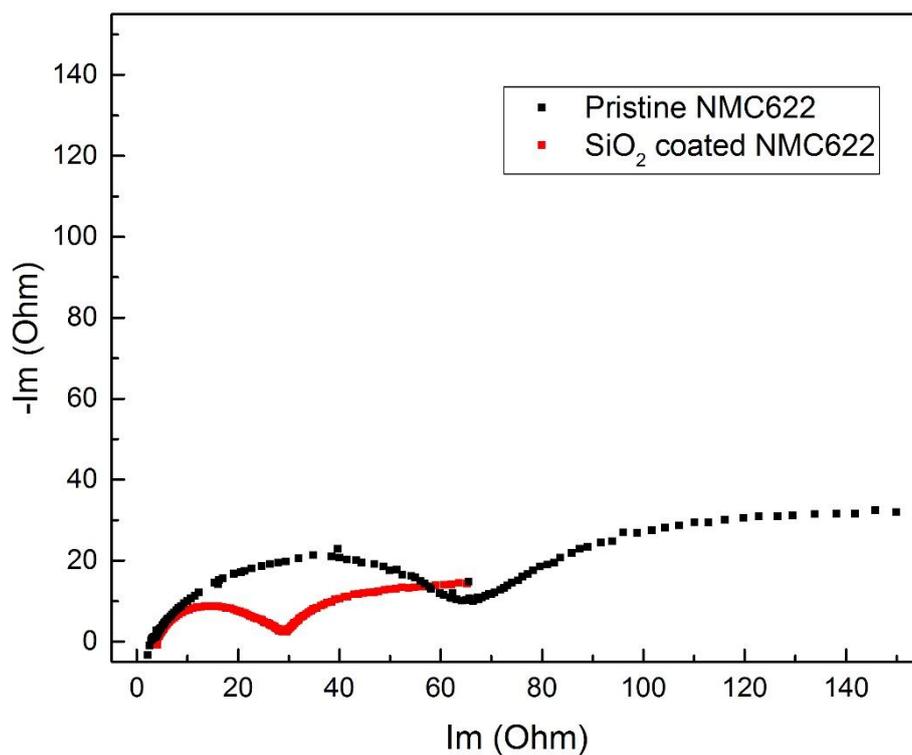
# Supporting information: Improved Capacity Retention of SiO<sub>2</sub> Coated LiNi<sub>0.6</sub>Mn<sub>0.2</sub>Co<sub>0.2</sub>O<sub>2</sub> Cathode Material for Lithium-Ion Batteries

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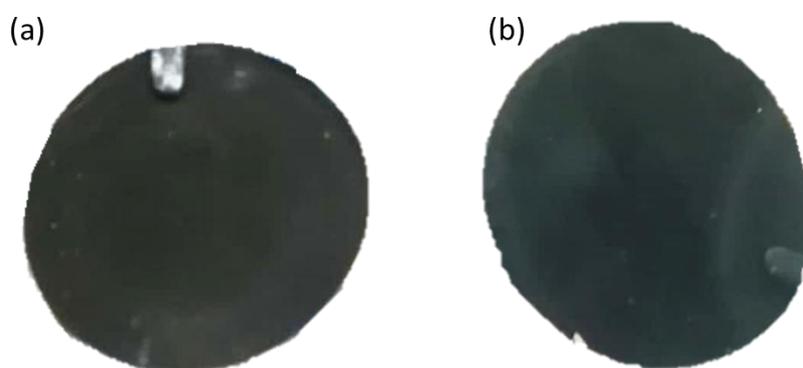
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**Figure S1.** Comparison of rate capability between pristine and SiO<sub>2</sub> coated NMC622.



**Figure S2.** EIS measurements of the pristine and SiO<sub>2</sub> coated NMC622 of both samples after formation cycles.



**Figure S3.** Electrodes (diameter 15 mm) of (a) pristine (b) SiO<sub>2</sub> coated NMC622 material after 700 cycles.

**Table S1.** The full width of half maximum (FWHM, in  $^{\circ}2\theta$ ) of the main reflexes and crystallite size (in Å) obtained by fitting the XRD patterns.

Sample	FWHM (003)	FWHM (101)	FWHM (104)	crystallite size (003)	crystallite size (101)	crystallite size (104)	R <sub>p</sub> (%)
uncycled pristine NMC622	0.2058	0.2107	0.2370	492	496	422	0.584
cycled pristine NMC622	0.2898	0.3228	0.3472	325	231	202	0.335
cycled SiO <sub>2</sub> coated NMC622	0.2088	0.2089	0.2389	486	472	398	0.448