

Supplemental Data

Table S1 Resistances of untreated, CTMS treated, and TEOS treated lithium metal after cycling measured using electrochemical impedance spectroscopy. Each cycle represents 1000 cycles of stripping followed by 1000 cycles of plating. The average value and standard deviation of three samples is shown.

	Sample 1 (ohm)	Sample 2 (ohm)	Sample 3 (ohm)	Average (ohm)	Standard Deviation (ohm)
Untreated Li					
cycle 1	401.8	392.6	395.9	396.8	4.7
cycle 5	264.3	280.1	269.2	271.2	8.1
cycle 10	176.1	204.5	210.1	196.9	18.2
cycle 20	88.2	62.9	68.7	73.3	13.3
CTMS treated Li					
cycle 1	162.5	157.9	161.7	160.7	2.5
cycle 5	127.5	131.1	124.9	127.8	3.1
cycle 10	80.2	96.5	87.6	88.1	8.2
TEOS treated Li					
cycle 1	34.7	33.3	37.5	35.2	2.1
cycle 5	36.6	33.1	33.4	34.4	1.9
cycle 10	34.7	31.3	33.5	33.2	1.7
cycle 20	30.1	32.6	34.4	32.4	2.2
cycle 100	29.8	28.4	29.3	29.2	0.7
