

Supporting information

Lithium storage performance and mechanism of nano-sized Ti_2InC MAX phase
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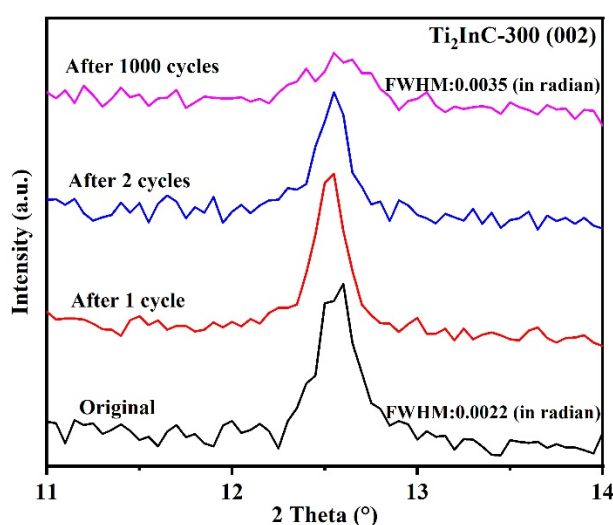


Figure S1 *ex-situ* XRD for $\text{Ti}_2\text{InC-300}$ electrodes after different cycles

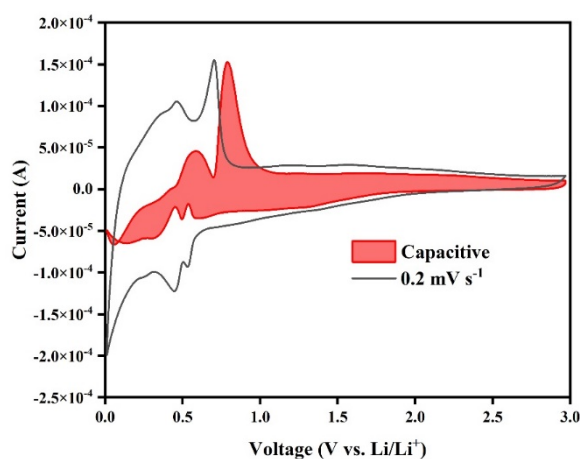


Figure S2 Capacitive and diffusion-controlled currents of $\text{Ti}_2\text{InC-300}$ electrode initially at 0.2 mV s^{-1}

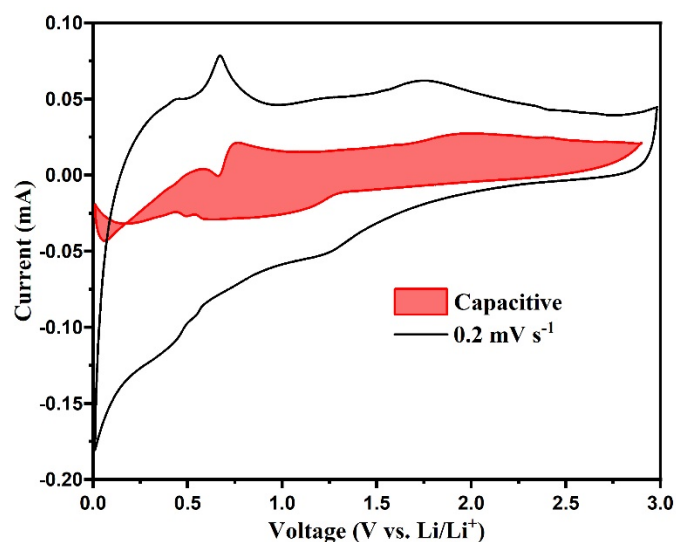


Figure S3 Capacitive and diffusion-controlled currents in $\text{Ti}_2\text{InC-300}$ electrode after 500 cycles at 0.2 mV s^{-1}

Table 1 diffusion-controlled contribution ratios of $\text{Ti}_2\text{InC-300}$ electrode before and after cycles

Scanning rate (mV s^{-1})	0.2	0.4	0.6	0.8	1.0
Initially	0.4859	0.4528	0.3945	0.3504	0.2994
After 500 cycles	0.7324	0.6857	0.6420	0.5977	0.5496