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Electronic Supplementary Information

VANADIA-TITANIA MULTILAYER NANODECORATION OF CARBON ONIONS VIA ATOMIC LAYER DEPOSITION FOR HIGH PERFORMANCE ELECTROCHEMICAL ENERGY STORAGE

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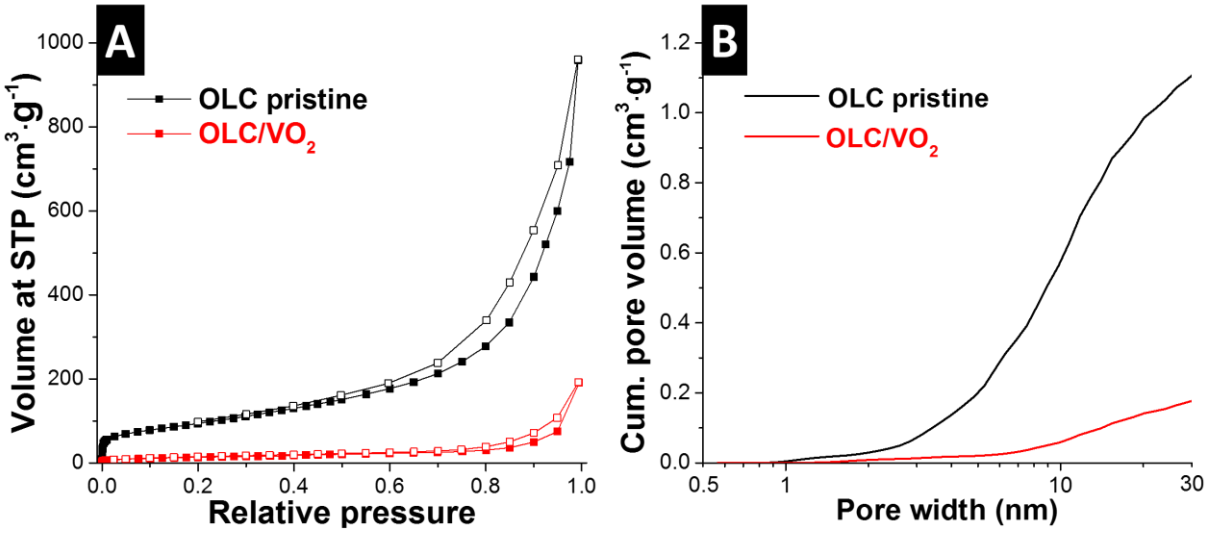

Figure S1: Nitrogen sorption isotherms at standard temperature and pressure (A) and specific cumulative pore volume of uncoated carbon onions and OLC/VO_2 (B). Data modified from Ref. [1].

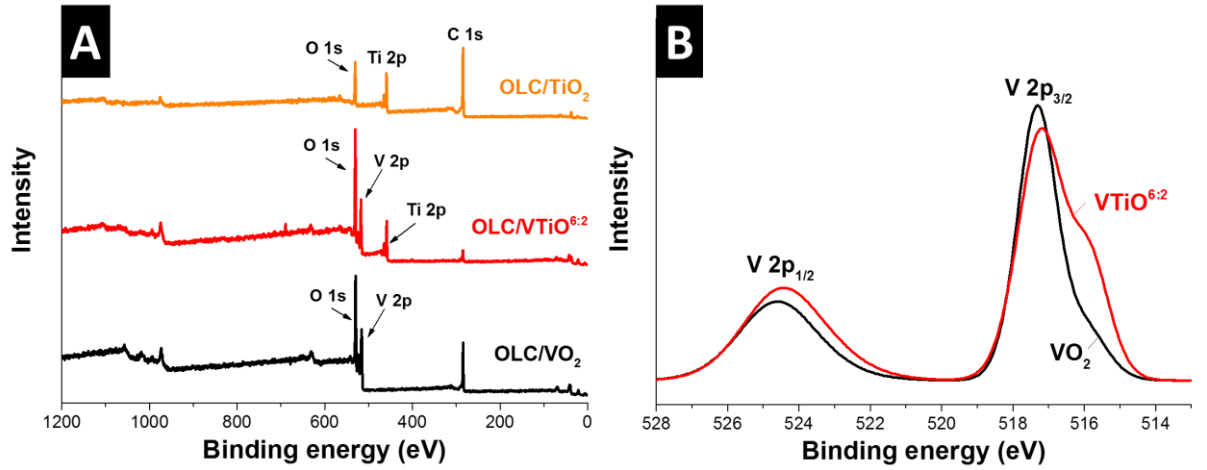

Figure S2: XPS survey spectra of OLC/VO_2, OLC/VTiO$^{6:2}$, OLC/TiO_2 (A), high resolution V 2p signals of OLC/VO_2 and OLC/VTiO$^{6:2}$ (B).

Table S1: Comparison of specific capacities for recently reported vanadium oxide hybrid systems.

Electrode material	Specific capacity per electrode ($mAh \cdot g^{-1}$)	Specific capacity per metal oxide ($mAh \cdot g^{-1}$)	Discharge rate	Reference
OLC/VTiO$^{6:2}$	382	554	0.05 $A \cdot g^{-1}$	This work
V_2O_5/CDC (core-shell)	310	420	0.05 $A \cdot g^{-1}$	[2]
CNT/V_2O_5 (+TiO_2 protective layer)	256	400	0.1 $A \cdot g^{-1}$	[3]
Graphene/VO_2	206	421	0.14 $A \cdot g^{-1}$	[4]
VO_2/Sb:SnO_2	154	350	0.1 $A \cdot g^{-1}$	[5]
CNT/VO_x:Ti (Ti-doped)	-	157	2 $mV \cdot s^{-1}$	[6]
OLC/VO_x	120	200	0.05 $A \cdot g^{-1}$	[1]
AC/VO_x	122	240	0.05 $A \cdot g^{-1}$	[1]

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