Supporting Information for

Intercalating Ultrathin MoO_3 Nanobelts into MXene Film with Ultrahigh Volumetric Capacitance and Excellent Deformation for High-Energy-Density Devices

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Supplementary Figures

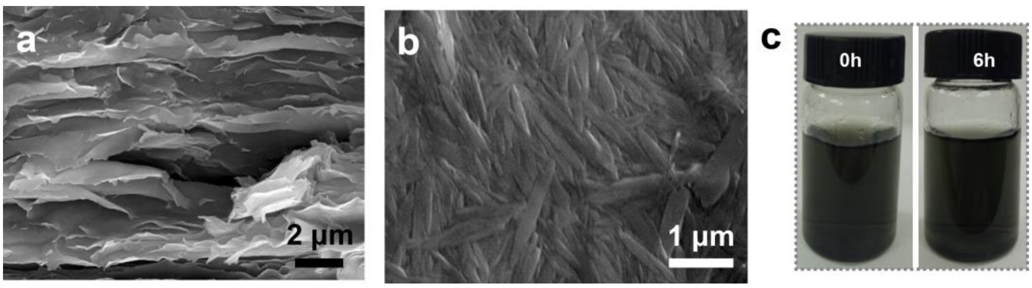

Fig. S1 SEM images of **(a)** MXene nanosheets, **(b)** MoO_3 nanobelts. **(c)** The mixture solution including MXene nanosheets and MoO_3 nanobelts without any precipitate after standing for several hours

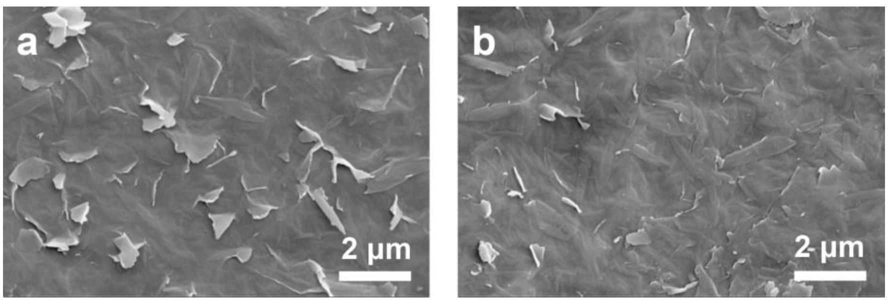

Fig. S2 Top-view SEM images of **(a)** M/MoO_3-10% and **(b)** M/MoO_3-30% hybrid films

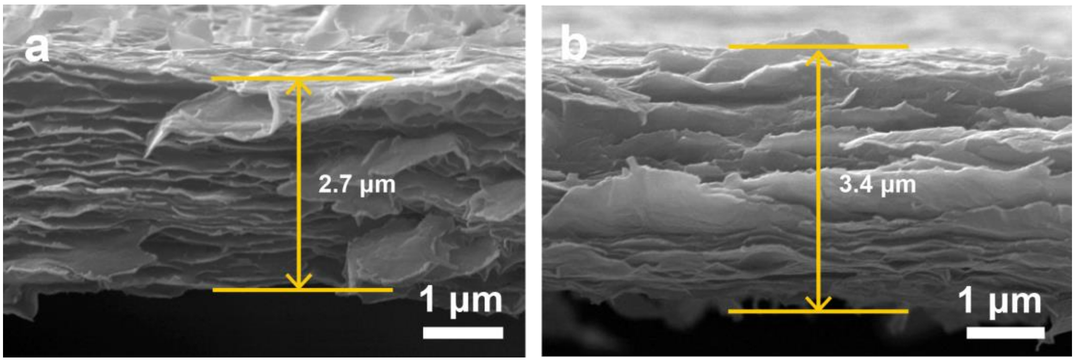

Fig. S3 Cross-section images of **(a)** pure MXene film and **(b)** M/MoO_3-30% hybrid films

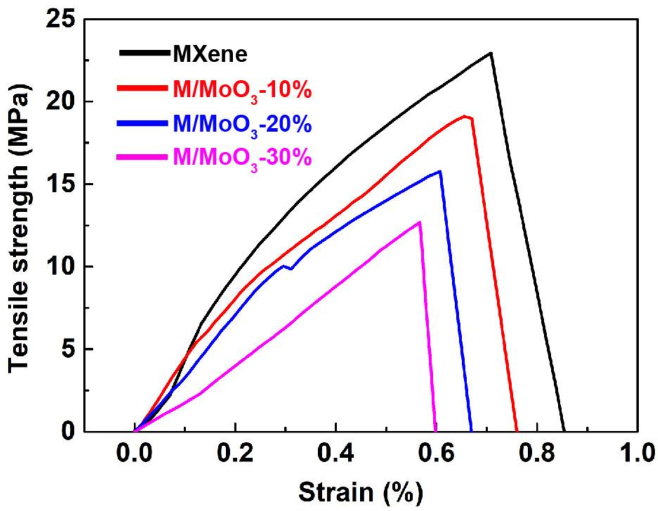

Fig. S4 Stress-strain curve of pure MXene film and hybrid films

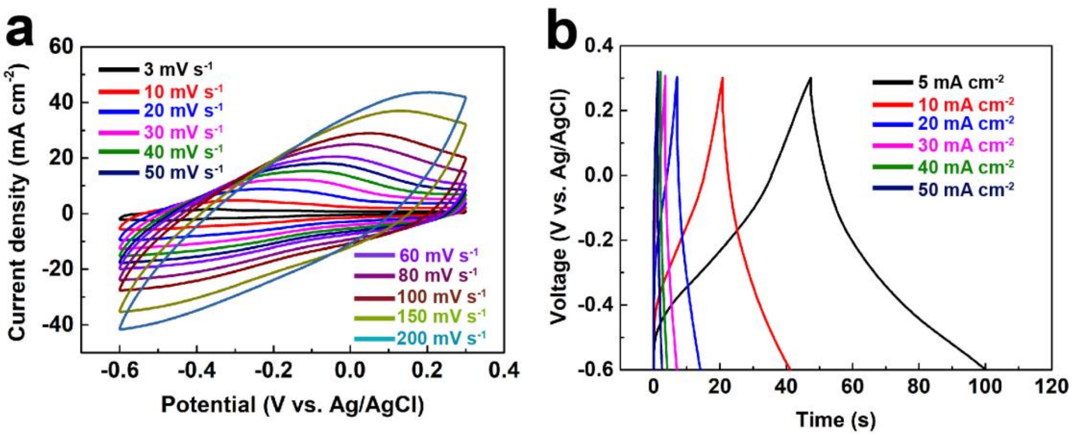

Fig. S5 (a) CV curves of the pure MXene electrode at various scan rates. **(b)** GCD profiles of pure MXene electrode at various current densities

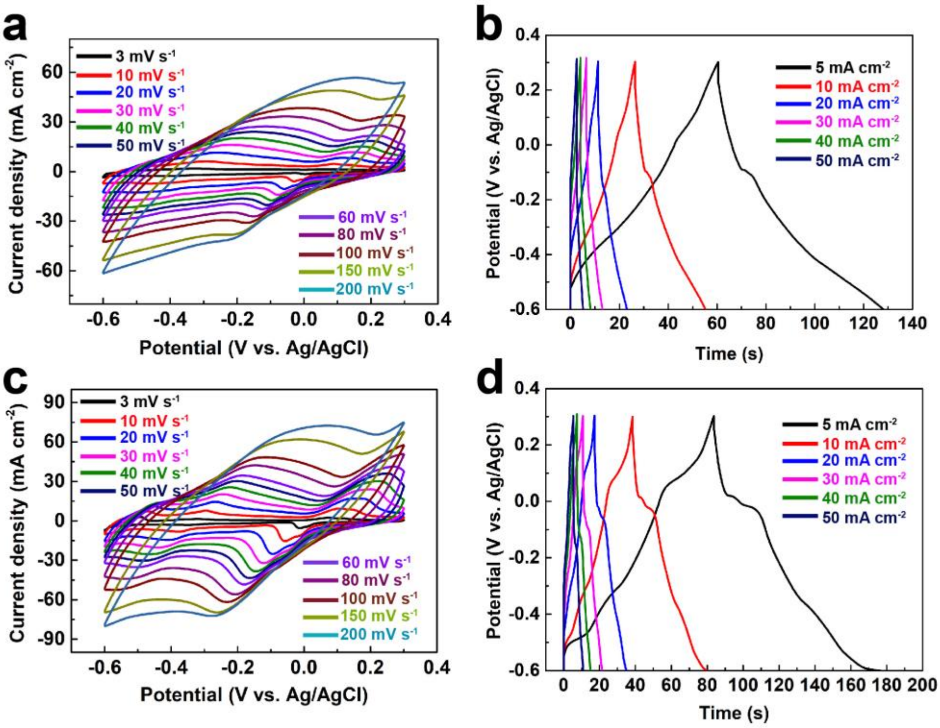

Fig. S6 (a) CV curves of the M/MoO_3-10% electrode at various scan rates. **(b)** GCD profiles of M/MoO_3-10% electrode at various current densities. **(c)** CV curves of the M/MoO_3-30% electrode at various scan rates. **(d)** GCD profiles of M/MoO_3-30% electrode at various current densities

Table S1 Comparison of the electrochemical performance of M/MoO_3-20% electrode with other MXene-based state-of-the-art electrodes

Materials	Electrolyte (mol L^{-1})	Potential (V)	Test condition	*C*g (F g^{-1})	*C*v (F cm^{-3})	Refs.
MXene hydrogel	3M H_2SO_4	-1.1--0.1	2 mV s^{-1}	380	1500	[S1]
$Ti_3C_2T_x$ clay	1M H_2SO_4	-0.35-0.2	2 mV s^{-1}	245	900	[S2]
MXene/Graphene	3M H_2SO_4	-0.7-0.3	2 mV s^{-1}	335.4	1040	[S3]
$Ti_3C_2T_x/MnO_2$	PVA/LiCl	0.8	1 A cm^{-3}	--	1025	[S4]
PPy/$Ti_3C_2T_x$	1M H_2SO_4	-0.2-0.35	5 mV s^{-1}	416	1000	[S5]
MXene/CNTs	3M H_2SO_4	-0.55-0.1	2 mA cm^{-2}	523	1083	[S6]
Ultracompact d- Ti_3C_2	1M Li_2SO_4	1V	2 mV s^{-1}	--	633	[S7]
$Ti_3C_2T_x$/SWCNT	1M $MgSO_4$	-0.8-0.1	2 mV s^{-1}	150	390	[S8]
M_XP_X fiber	PVA/ H_2SO_4	-0.65-0.2	5 mV s^{-1}	--	614.5	[S9]
MXene/MPFs	0.5M H_2SO_4	-0.3-0.3	1 A cm^{-3}	--	694.2	[S10]
M/MoO_3-20%	**1M H_2SO_4**	**-0.6-0.3**	**3 mV s^{-1}**	**545**	**1817**	**This work**

Table S2 Comparison of the electrochemical performance of M/MoO_3 hybrid electrode with other reported electrode materials for symmetric supercapacitors

Materials	Electrolyte (mol L^{-1})	C_V (F cm^{-3})	E_v (Wh L^{-1})	p_v (W L^{-1})	Refs.
$Ti_3C_2T_x$/rGO-5 wt%	3 M H_2SO_4	--	32.6	74400	[S3]
d-Ti_3C_2	Organic electrolyte	--	41	--	[S7]
$Mo_{1.33}C$ MXene /PEDOT:PSS	PVA/H_2SO_4 gel	568	33.2	19470	[S11]
N-$Ti_3C_2T_x$ -300	3 M H_2SO_4	--	21	18300	[S12]
R@M-$A_{0.75:1}$ MSC	PVA-KOH	267.9	13.5	48500	[S13]
MXene/rGO	PVA/ H_2SO_4	80	8.6	--	[S14]
$(MXene/TAEA)_n$	PVA/ H_2SO_4	--	5.1	4400	[S15]
PPy/l-Ti_3C_2	PVA-H_2SO_4	--	10	4000	[S16]
EG/MXene 1:3	PVA/H_3PO_4	216	3.4	1600	[S17]
MnO_x-Ti_3C_2 film	1 M Li_2SO_4	--	13.64	3755.61	[S18]
MXene/rGO fiber	PVA/H_2SO_4	256	5.1	1700	[S19]
MXene-MoS_2	PVA/LiCl gel	173.6	15.5	970	[S20]
M/MoO_3-20%	**1 M H_2SO_4**	**396**	**44.6**	**25080**	**This work**

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