Supporting Information

PPy@h-MoO_3 nanorods as cathode material for high-efficiency lithium-ion batteries

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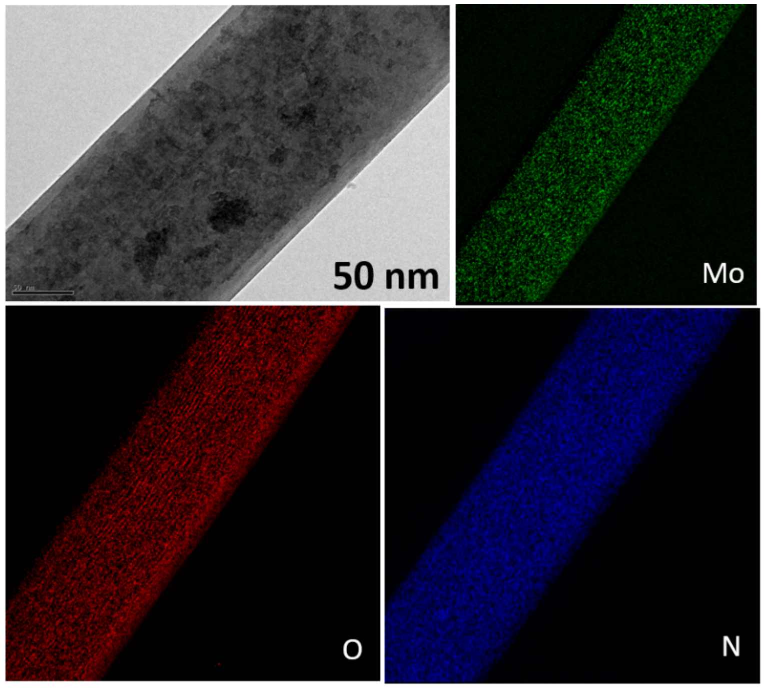

Figure S1 TEM and EDS mapping of PPy@h-MoO_3 NRs and the related elemental mapping of Mo (green), O (red) and N (blue).

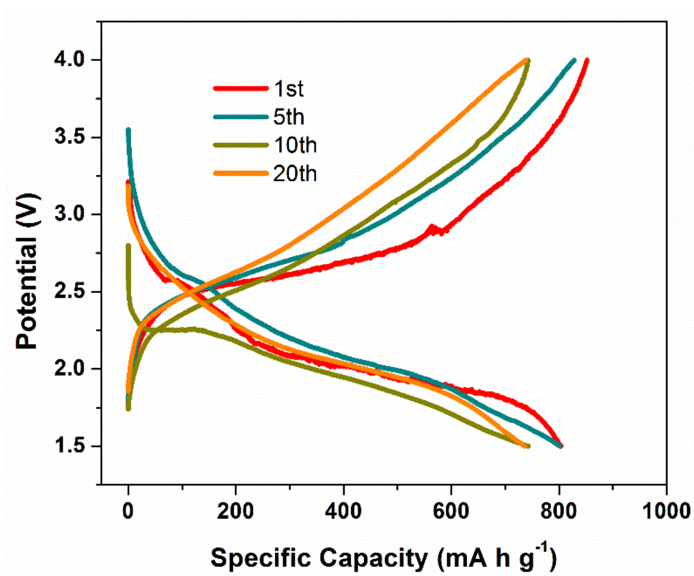

Figure S2 Charge-discharge voltage profiles of h-MoO_3 NRs for different cycles at voltage of 1.5-4 V.

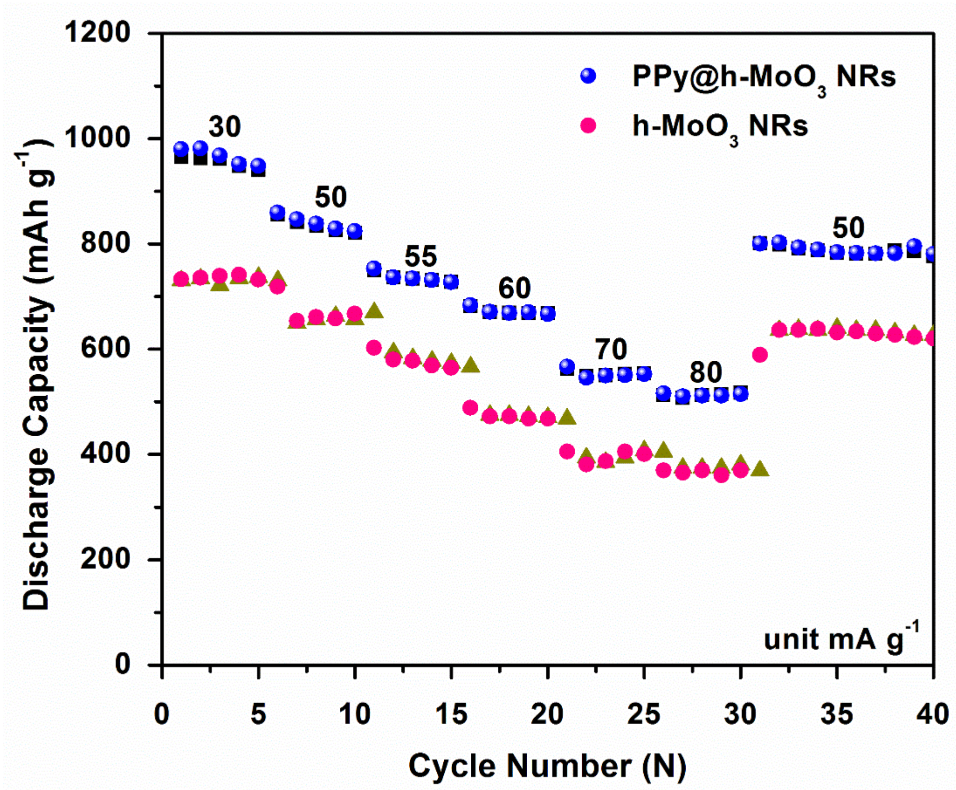

Figure S3 Rate capability of PPy@h-MoO_3 NRs and h-MoO_3 NRs cathodes at various current densities.

Table S1. State-of-the-art of LIBs comparison of present cathode material performance with previously reported data.

Cathode Material/Morphology	Capacity (mA h g^{-1})	Current density (mA g^{-1})	Cycles	Ref.
h-MoO_3 nanorods	**852**	**30**	**100**	**This work**
PPy@h-MoO_3 nanorods	**954**	**30**	**100**	
PPy@h-MoO_3 nanorods	**289**	**100**	**50**	
h-MoO_3 nanorods	402	0.1 mA cm^{-2}	NA	[1]
MoO_3/PPy nanobelts	302	30	14	[2]
MoO_3/PVP/PVA nanobelts	303	NA	10	[3]
MoO_3/PEG nanobelts	313	0.4 mA cm^{-2}	20	[4]
V_2O_5 doped MoO_3	280	50	50	[5]
α-MoO_3 nanobelts	264	30	50	[6]
α-MoO_3 nanobelts	140	200	50	[7]
α-MoO_3 nanofibers	250	74	100	[8]
α-MoO_3 nanobelts	400	0.1 mA cm^{-2}	30	[9]
MoO_3/graphene	291	100	100	[10]
h-MoO_3 nanoparticles	120	20	25	[11]

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