

Supporting Information

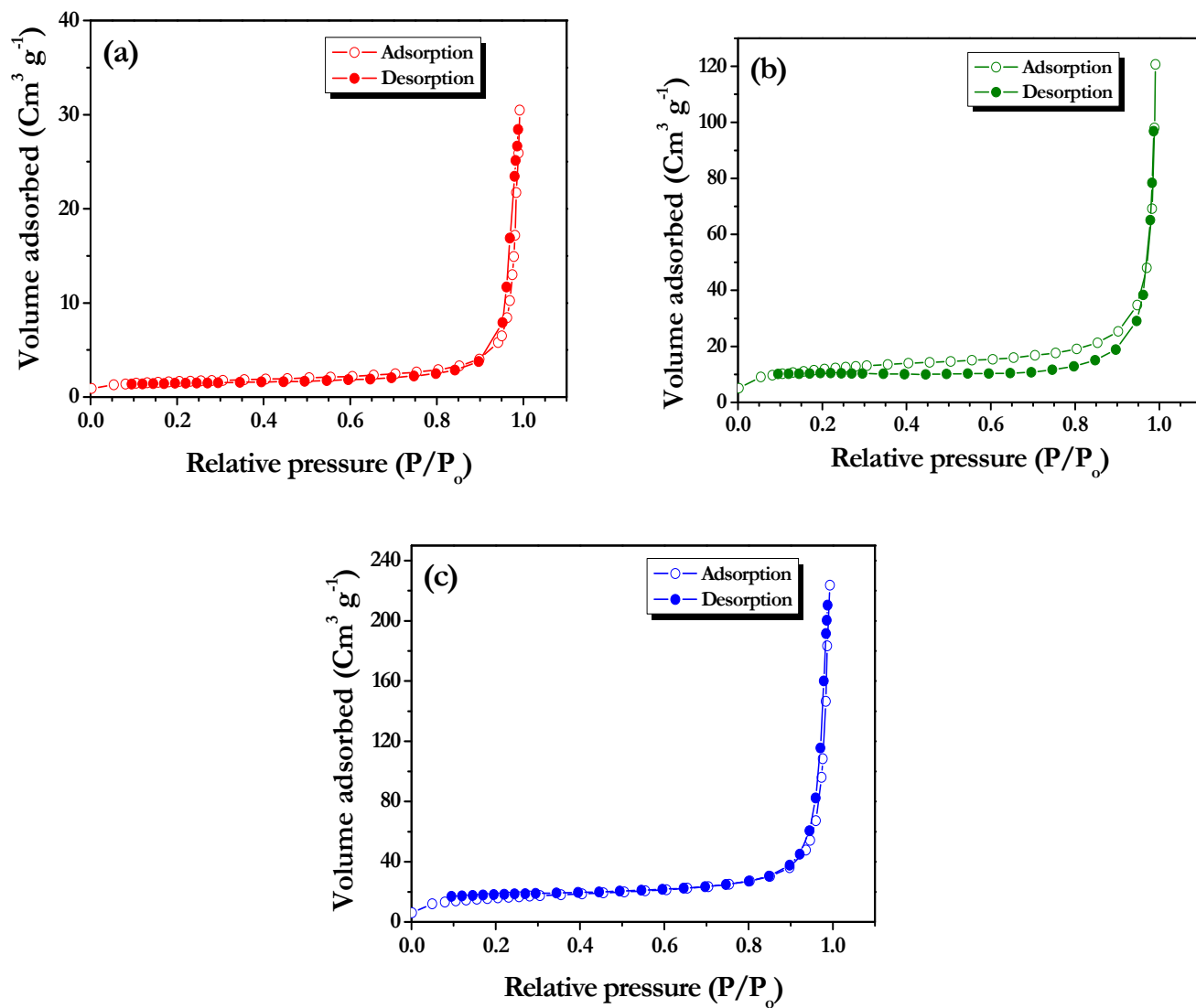


Figure S1. N₂ adsorption/desorption isotherms (a) Li(Mn_{1/3}Ni_{1/3}Fe_{1/3})O₂ (b)

Li(Mn_{1/3}Ni_{1/3}Fe_{1/3})O₂-PPy and (c) Li(Mn_{1/3}Ni_{1/3}Fe_{1/3})O₂-PANI composite materials.

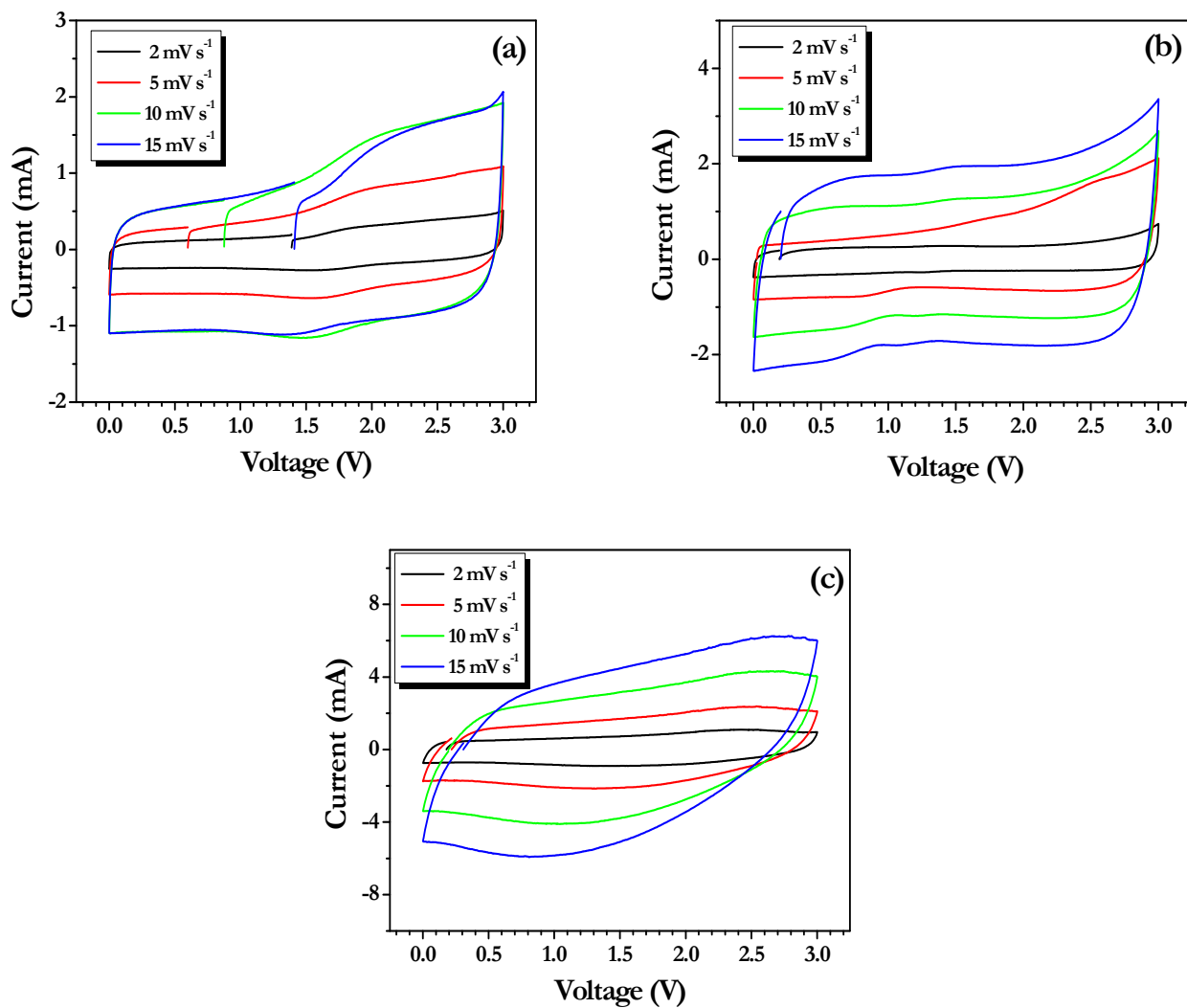


Figure S2. CV curves of (a) $\text{Li}(\text{Mn}_{1/3}\text{Ni}_{1/3}\text{Fe}_{1/3})\text{O}_2/\text{AC}$ (b) $\text{Li}(\text{Mn}_{1/3}\text{Ni}_{1/3}\text{Fe}_{1/3})\text{O}_2\text{-PPy}/\text{AC}$ and (c) $\text{Li}(\text{Mn}_{1/3}\text{Ni}_{1/3}\text{Fe}_{1/3})\text{O}_2\text{-PANI}/\text{AC}$ cells recorded at different current rates between 0-3 V in the presence of 1 M LiPF_6 in EC:DMC (1:1 v/v.).

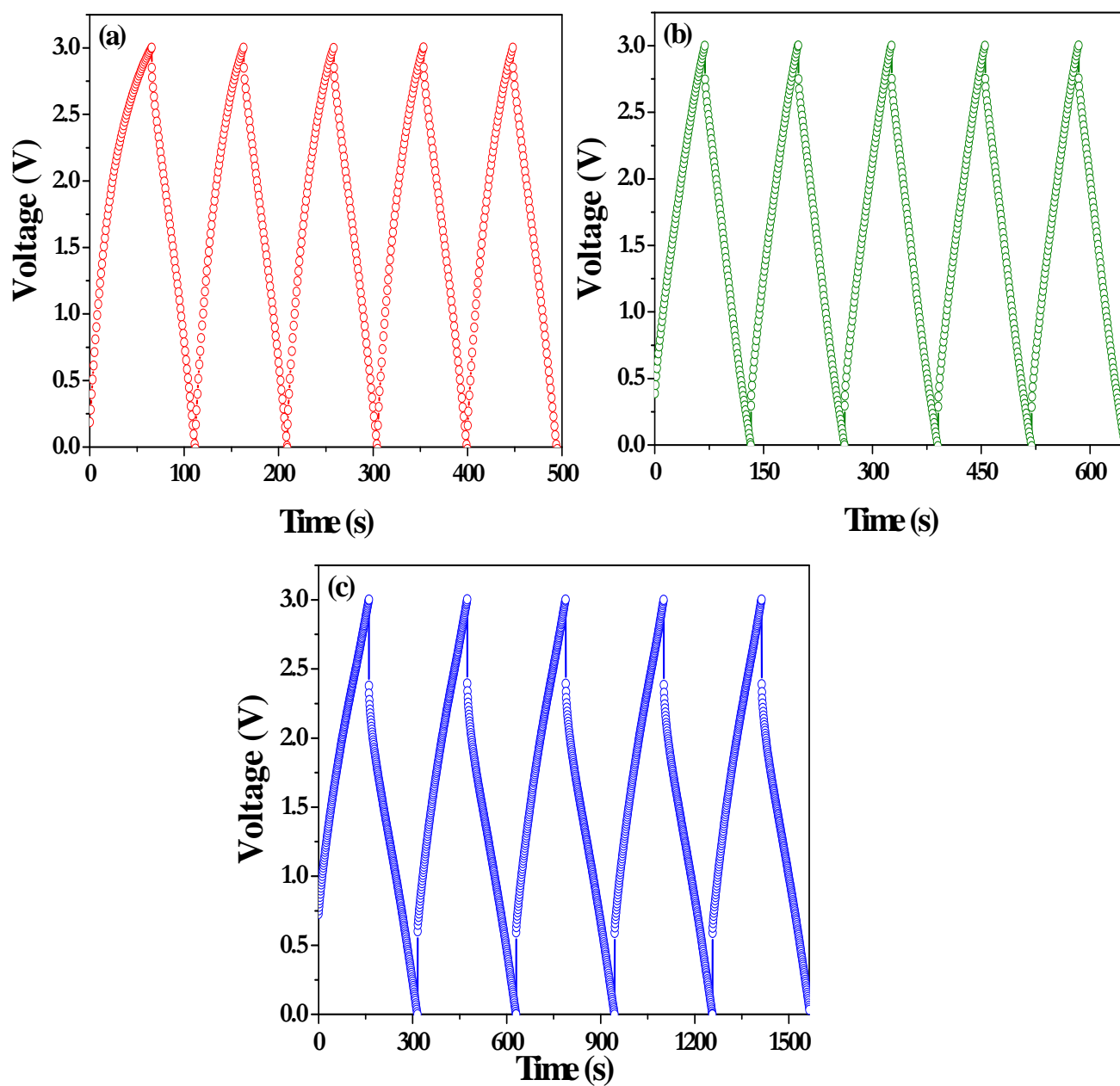


Figure S3. Charge discharge curves of (a) $\text{Li}(\text{Mn}_{1/3}\text{Ni}_{1/3}\text{Fe}_{1/3})\text{O}_2/\text{AC}$ (b) $\text{Li}(\text{Mn}_{1/3}\text{Ni}_{1/3}\text{Fe}_{1/3})\text{O}_2\text{-PPy}/\text{AC}$ and (c) $\text{Li}(\text{Mn}_{1/3}\text{Ni}_{1/3}\text{Fe}_{1/3})\text{O}_2\text{-PANI}/\text{AC}$ cells recorded at 0.72 A g^{-1} current density between 0-3 V in 1 M $\text{LiPF}_6/\text{EC}:\text{DMC}$ (1:1 v/v.) electrolyte.

Table S1. Comparison of specific power (S_{PD} , $W\ kg^{-1}$) and specific energy density (S_{ED} , $Wh\ kg^{-1}$) of various non-aqueous Li-ion hybrid supercapacitors with Li-intercalating materials as electrodes at given current density.

Systems	S_{PD} ($W\ kg^{-1}$)	S_{ED} ($Wh\ kg^{-1}$)	Reference
PANI-Li(Mn_{1/3}Ni_{1/3}Fe_{1/3})O₂/AC	1000	~49	Present work
LiMn ₂ O ₄ /AC	125	35	[1]
LiTi ₂ (PO ₄) ₃ /AC	180	14	[2]
Li ₄ Ti ₅ O ₁₂ /poly(methyl)thiophene	30	10	[3]
LiCoPO ₄ /CNF	192	11	[4]
LiMn ₂ O ₄ /MnO ₂ -CNT	600	42	[5]
(LiMn ₂ O ₄ + AC)/Li ₄ Ti ₅ O ₁₂	~200	16	[6]
LiTi ₂ (PO ₄) ₃ /MnO ₂	200	43	[7]
Li ₂ MnSiO ₄ /AC	900	40	[8]
Li ₂ FeSiO ₄ /AC	1000	33	[9]
LiCrTiO ₄ /AC	800	23	[10]
V ₂ O ₅ /CNT	45	18	[11]

References

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