

Electronic Supplementary Information

High-voltage and free-standing poly(propylene carbonate)/ $\text{Li}_{6.75}\text{La}_3\text{Zr}_{1.75}\text{Ta}_{0.25}\text{O}_{12}$ composite solid electrolyte for wide temperature, flexible solid lithium ion battery

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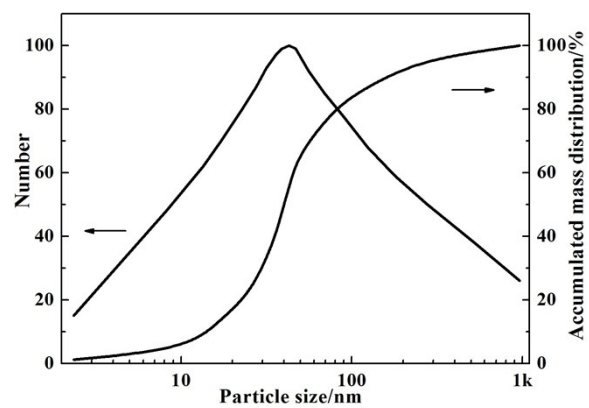


Fig. S1 Size distribution of the LLZTO determined by a laser particle size analyzer.

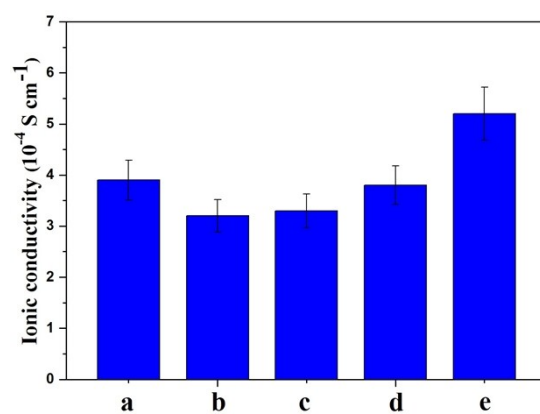


Fig. S2 Ionic conductivity of (a) PPC-SPE, (b) PPC-SPE with SiO_2 , (c) PPC-SPE with Al_2O_3 , (d) PPC-SPE with TiO_2 and (e) PPC-SPE with LLZTO.

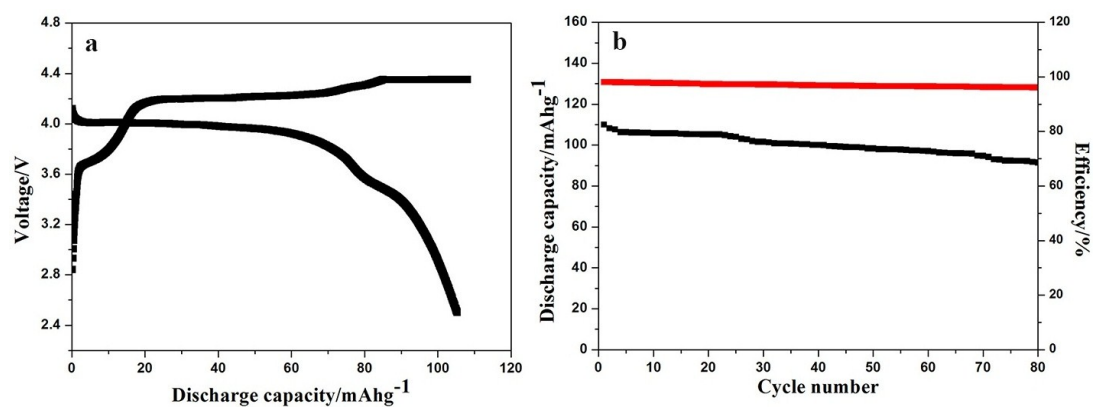


Fig. S3 (a) Charge/discharge curves and (b) cycle performance of solid LiFeMnPO₄/Li battery using PPCL-SPE (2.5 V-4.4 V).

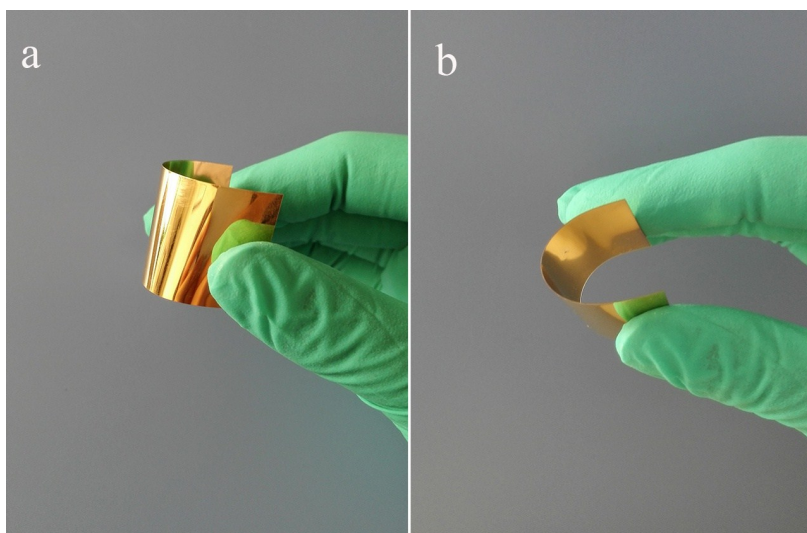


Fig. S4 Digital photographs of flexible gold-plated PET substrate in different angles, showing its good flexibility.