

Supplementary Material

Solvent-free and Scalable Procedure to Prepare PYR13TFSI/LiTFSI/PVDF–HFP Thermoplastic Electrolytes with Controlled Phase Separation and Enhanced Li Ion Diffusion

Víctor Gregorio, Nuria García and Pilar Tiemblo *

Instituto de Ciencia y Tecnología de Polímeros, ICTP-CSIC, Juan de la Cierva 3, 28006 Madrid, Spain;
v.gregorio@ictp.csic.es (V.G.); ngarcia@ictp.csic.es (N.G.)

* Correspondence: ptiemblo@ictp.csic.es

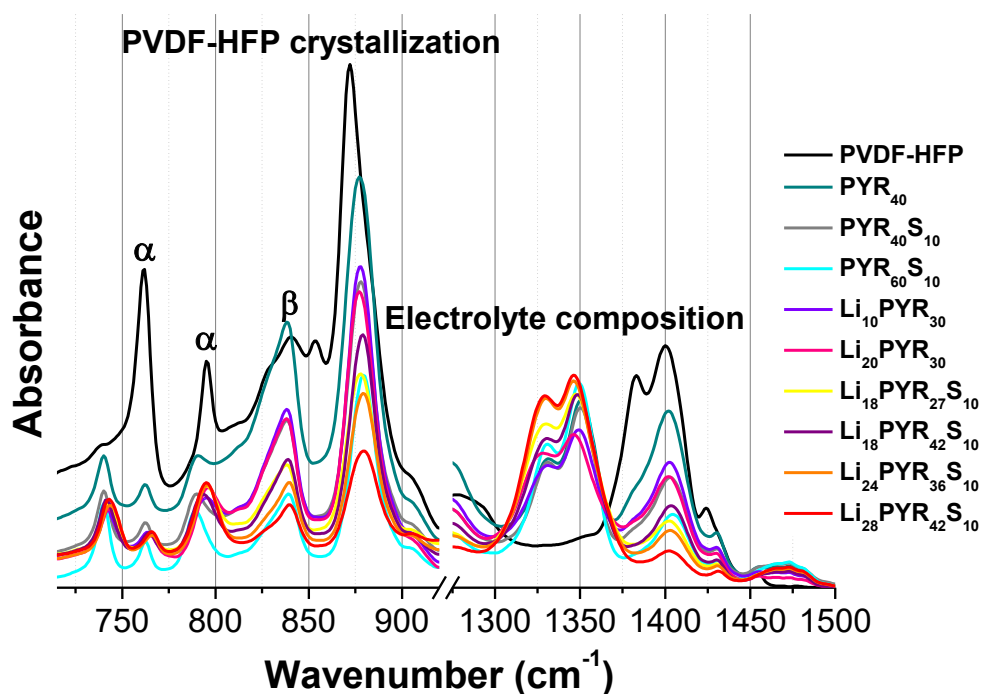


Figure S1. FTIR spectra in the 700 to 1500 cm⁻¹ region illustrating the crystallization forms of polyvinylidene fluoride–hexafluoropropylene (PVDF–HFP) and the electrolyte composition.

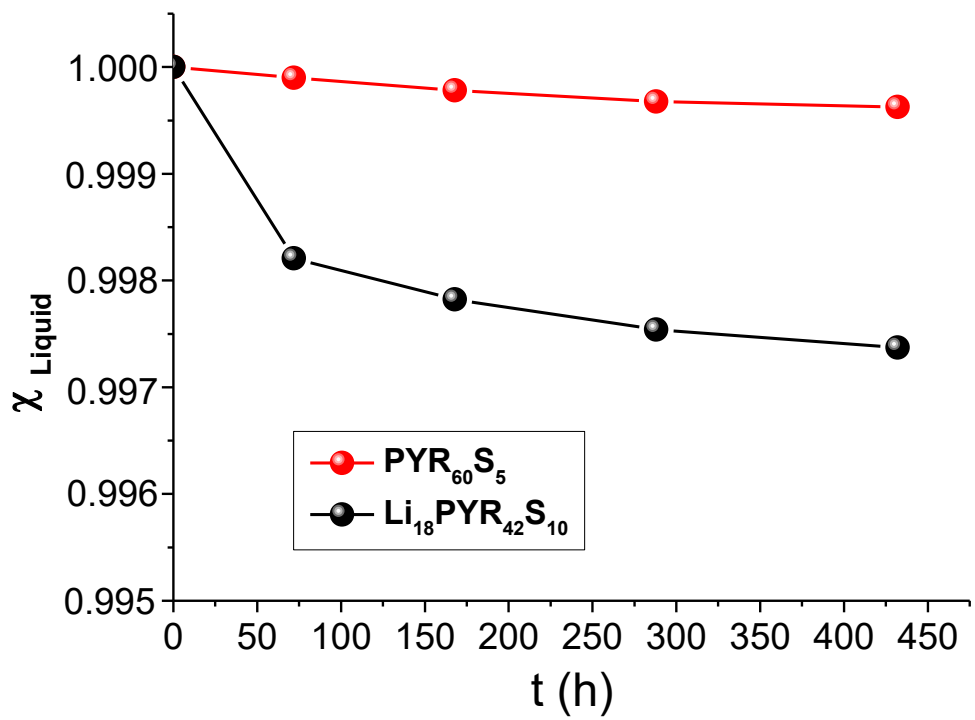


Figure S2. Gravimetric determination of the liquid phase loss in two electrolytes along time.

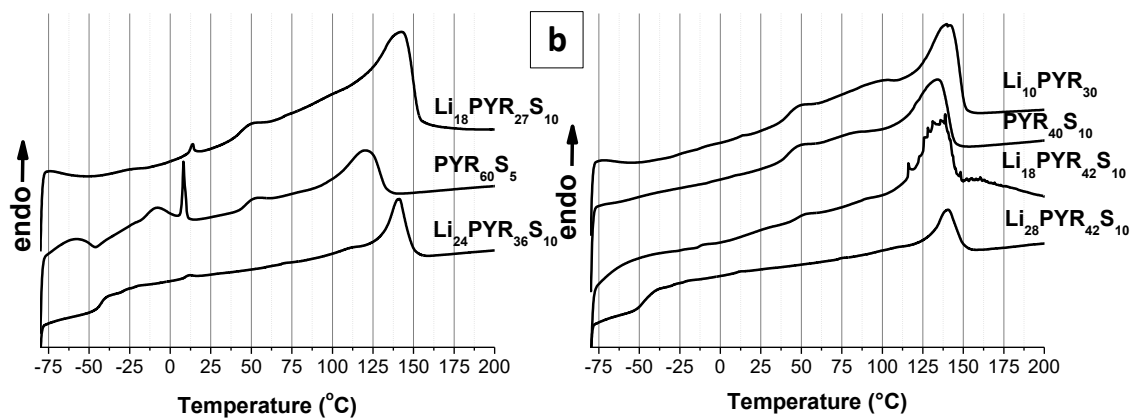
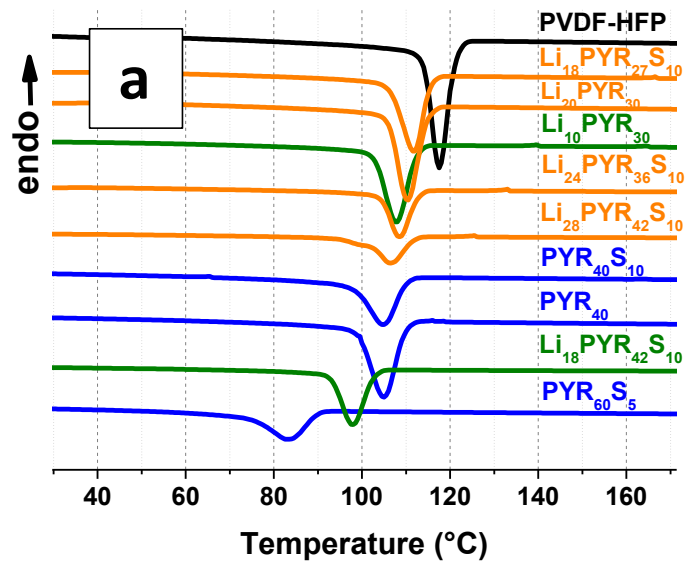


Figure S3. (a) Differential scanning calorimetry (DSC) on cooling at $10\text{ }^{\circ}\text{C}\cdot\text{min}^{-1}$ showing the crystallization of the electrolytes (b) DSC on heating at $10\text{ }^{\circ}\text{C}\cdot\text{min}^{-1}$ showing the T_g and T_m of the electrolytes, divided into two groups for better visualization.

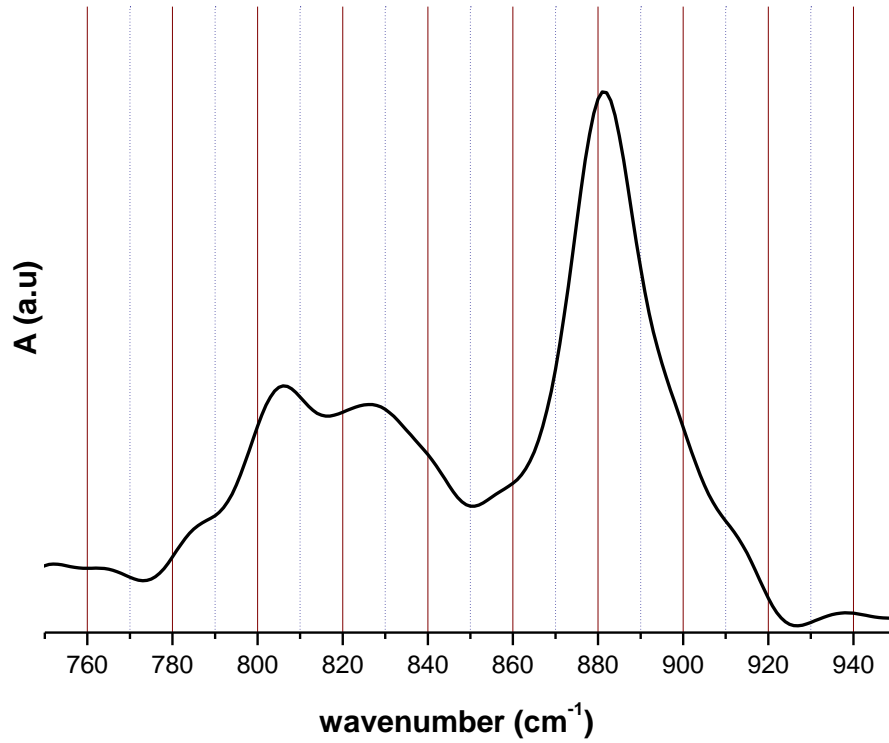


Figure S4: FTIR spectrum of PVDF-HFP in DMF solution, 1 wt %.

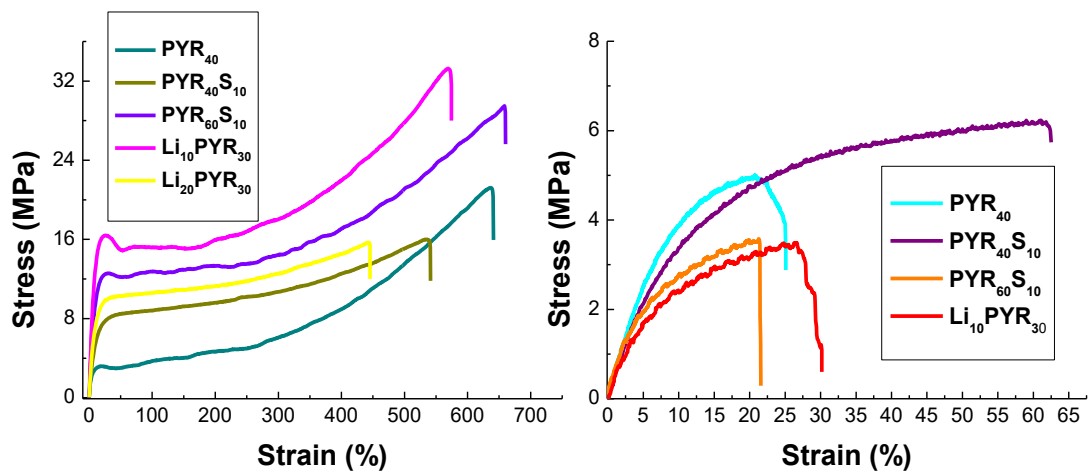


Figure S5. Strain-stress curves of all the electrolytes. They have been divided into two groups for better visualization.