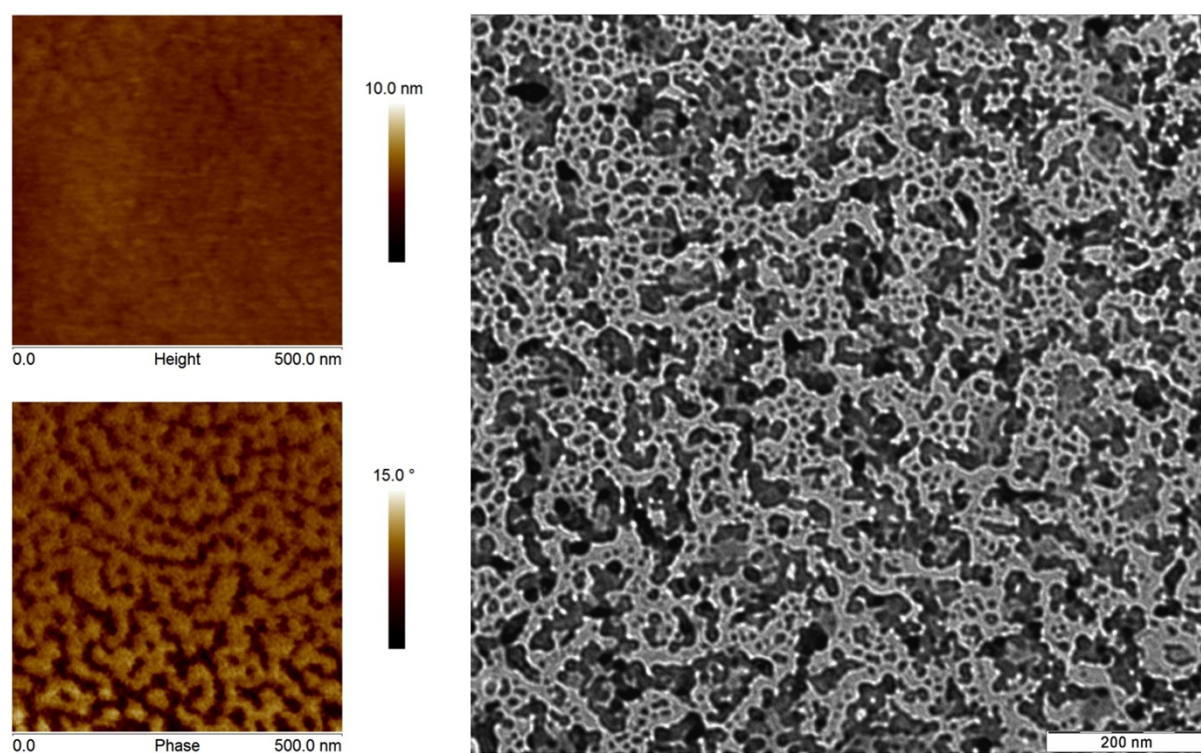


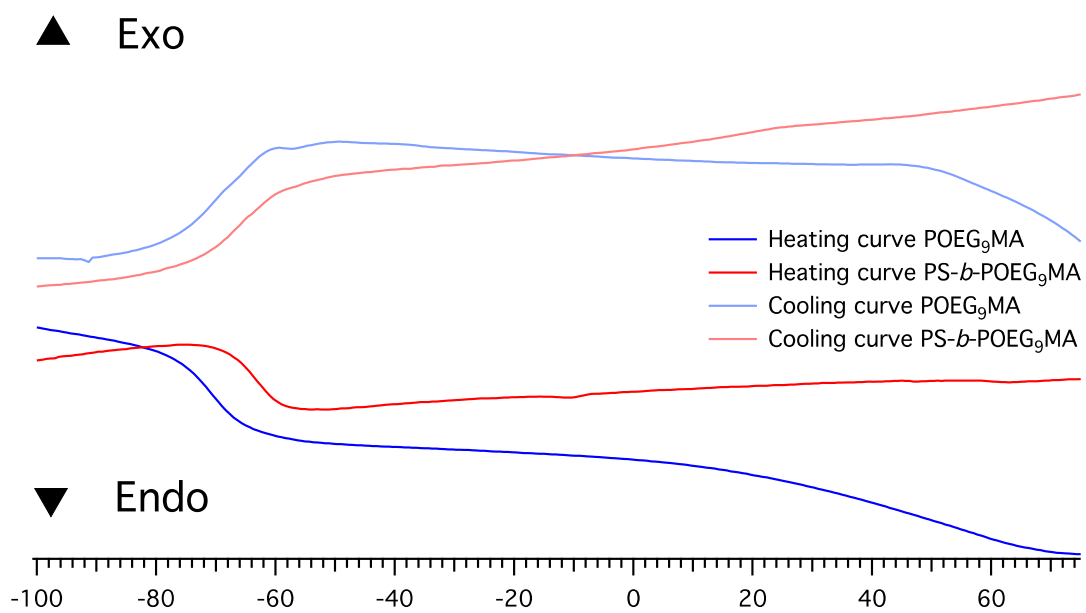
## Supporting Information

### Chemically anchored Liquid-PEO based Block Copolymer Electrolytes for Solid-State Lithium-Ion Batteries

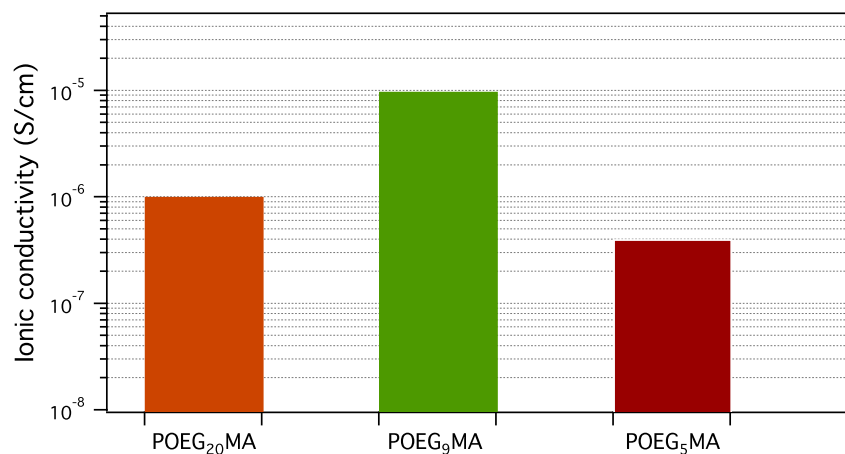
*Julien Rolland, Jérémy Brassinne, Jean-Pierre Bourgeois, Elio Poggi, Alexandru Vlad, Jean-François Gohy\**



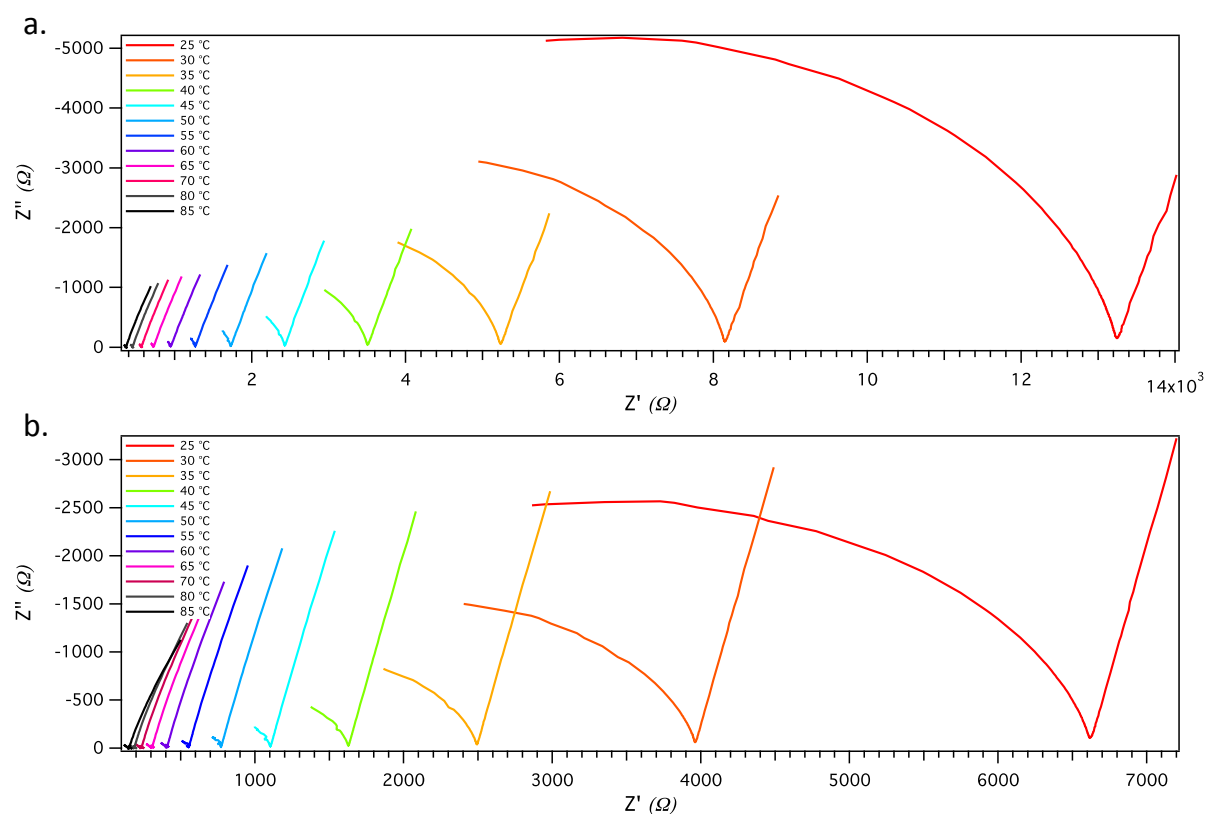
**Figure S1.** (left) Atomic force microscopy analysis of the PS-*b*-POEG<sub>9</sub>MA electrolyte (topography and phase contrast) revealing the microstructural segregation. (right) TEM inspection is consistent with AFM images.



**Figure S2.** DSC cooling and heating diagrams for PS<sub>96</sub>-*b*-POEG<sub>9</sub>MA<sub>84</sub> and POEG<sub>9</sub>MA<sub>88</sub> at a rate of 5°C/min.



**Figure S3.** Ionic conductivity of POEG<sub>5,9,20</sub>MA homopolymers doped with 30:1 equivalents of LiClO<sub>4</sub>.



**Figure S4.** Nyquist plots of (a) PS-*b*-POEG<sub>9</sub>MA and (b) POEG<sub>9</sub>MA in a temperature range of 25 °C to 85°C.