

Cite this: DOI: 10.1039/c0xx00000x

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## Supporting Information

### Synthesis of an Original MAFTEG Monomer and its Radical Copolymerization with Vinylidene Fluoride. Application as Polymer Electrolyte Gel for Li-Ion Batteries

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5 Received (in XXX, XXX) Xth XXXXXXXXXX 20XX, Accepted Xth XXXXXXXXXX 20XX

DOI: 10.1039/b000000x

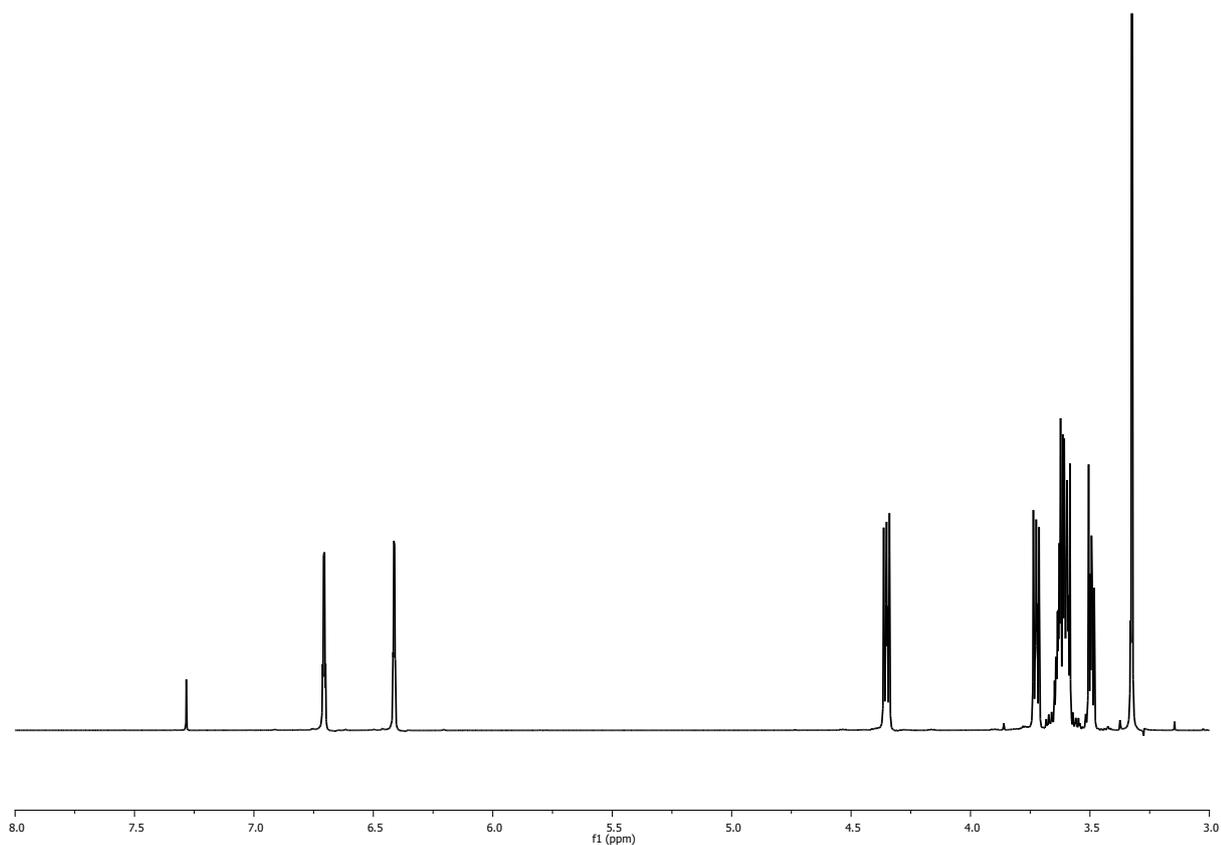


Figure S1: <sup>1</sup>H NMR spectrum (CDCl<sub>3</sub>, 400 MHz, room temperature) of MAFTEG monomer

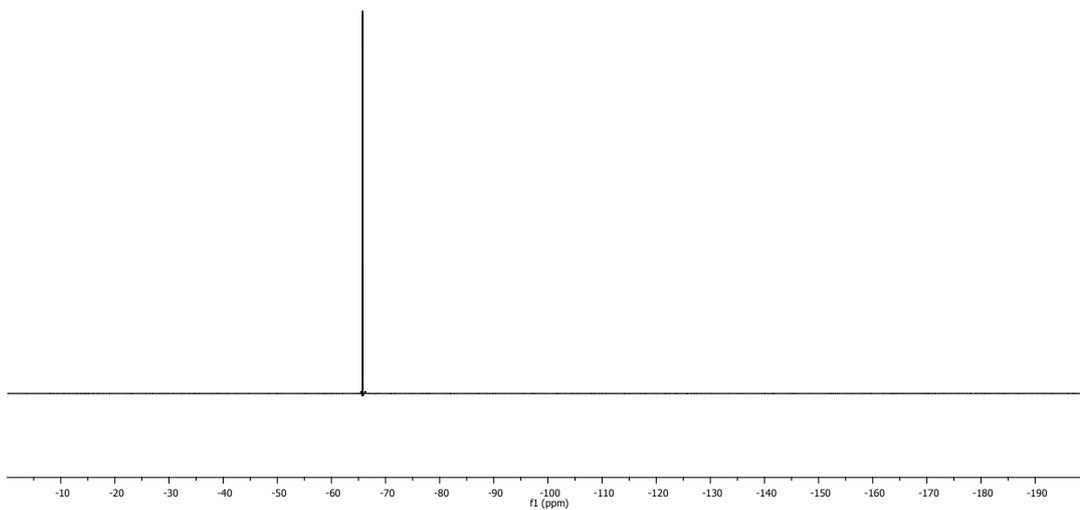


Figure S2:  $^{19}\text{F}\{^1\text{H}\}$  NMR spectrum ( $\text{CDCl}_3$ , 376 MHz, room temperature) of MAFTEG monomer

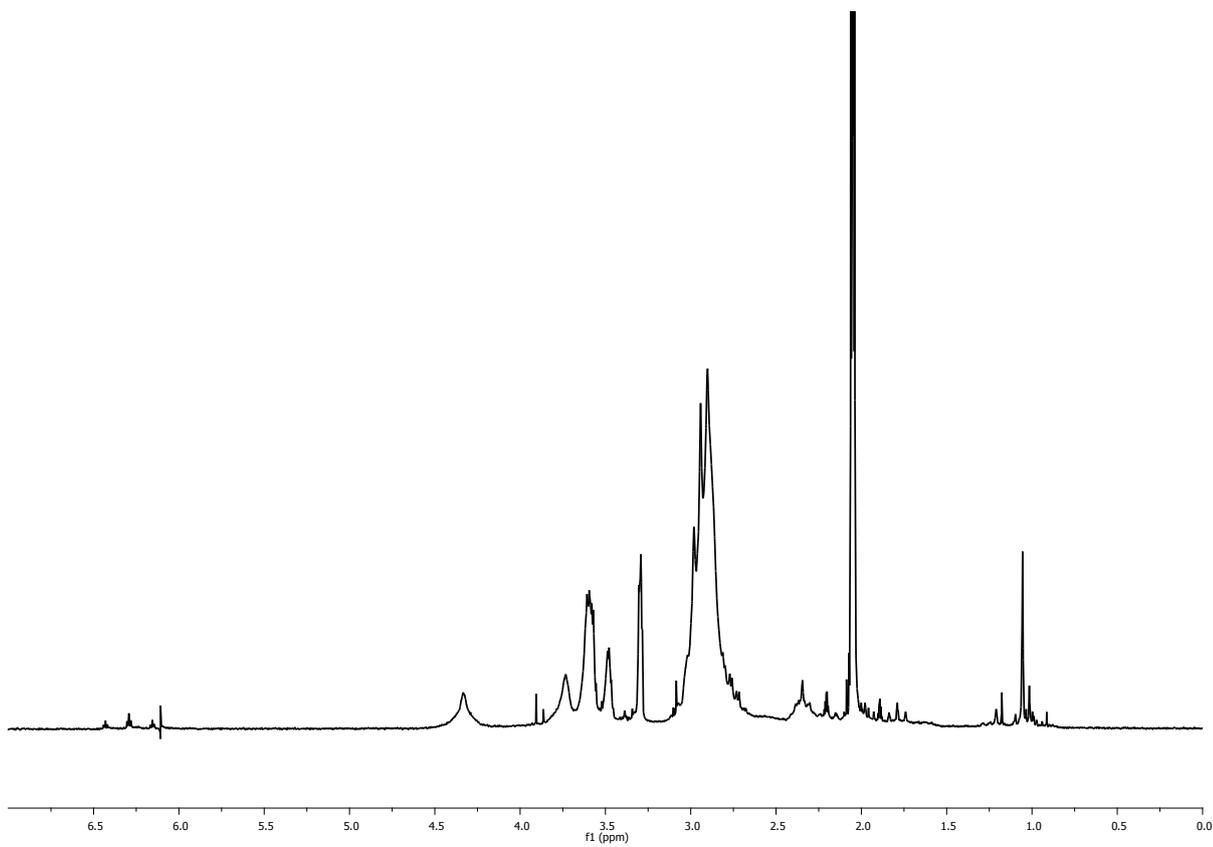


Figure S3:  $^1\text{H}$  NMR spectrum (acetone  $\text{D}_6$ , 400 MHz) of a 89/11 poly(VDF-*co*-MAFTEG) copolymer

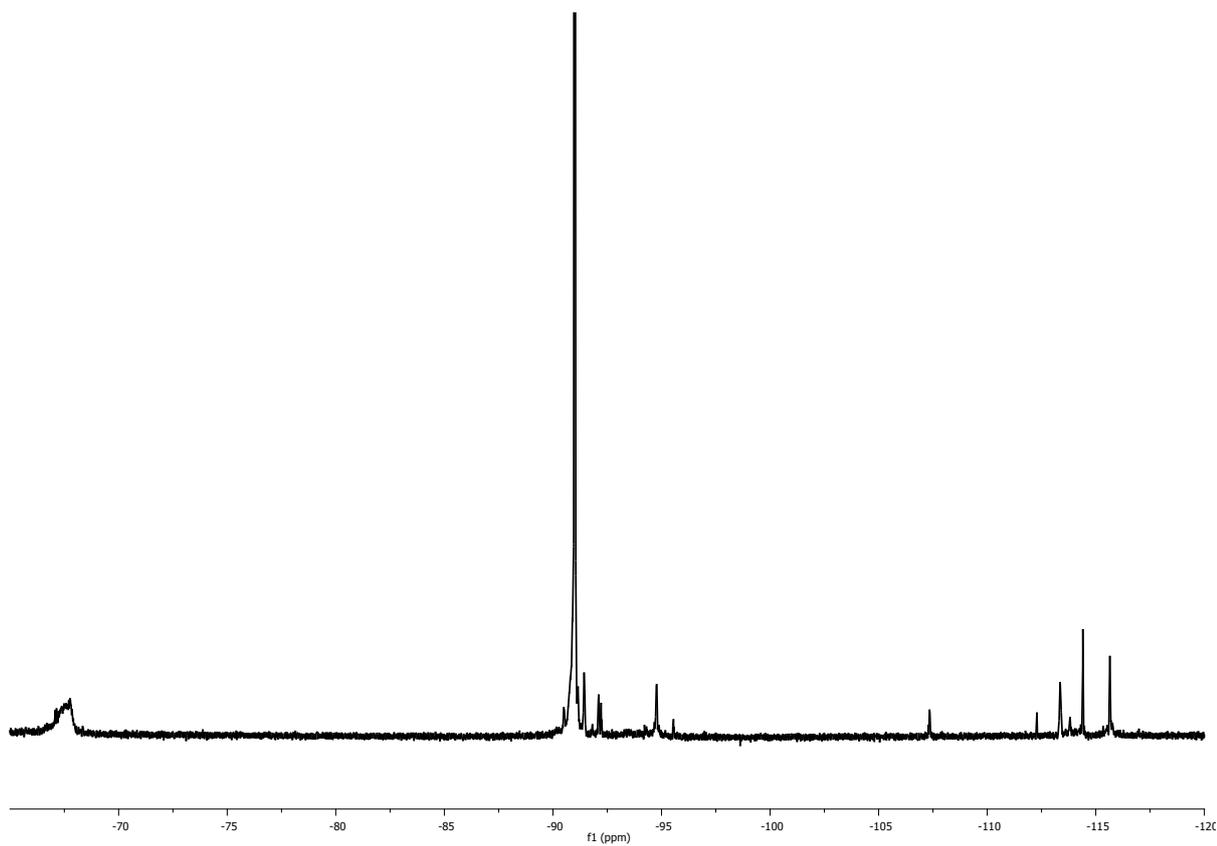


Figure S4:  $^{19}\text{F}\{^1\text{H}\}$  NMR spectrum (acetone  $\text{D}_6$ , 376 MHz) of 89/11 poly(VDF-*co*-MAFTEG) copolymer

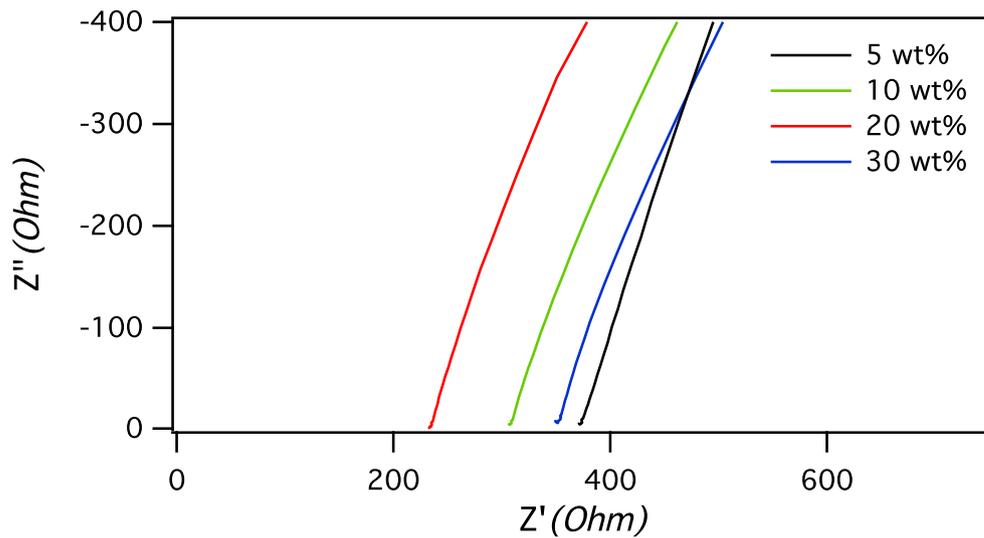


Figure S5: Nyquist plot of ionic liquid P(VDF-co-MAFTEG) copolymer (9 mol% MAFTEG) gel polymer electrolyte at several silica contents.