

Supporting Information for:

Synthesis of a Zwitterionic *N*-Ser-Ser-*C* Dimethacrylate Cross-linker and Evaluation in Polyampholyte Hydrogels

Moubani Chakraborty^{†#}, Stephanie L. Haag[#], Matthew T. Bernards^{‡*},
and Kristopher V. Waynant^{†*}

[†]Department of Chemistry, University of Idaho, Moscow, ID 83844

[‡]Department of Chemical and Biological Engineering, University of Idaho, Moscow, ID 83844

[#]The first two authors contributed equally to this work

*Corresponding authors: kwaynant@uidaho.edu; mbernards@uidaho.edu

Table of Contents

- ¹H and ¹³C NMR spectra of all reported compounds (Figures S1-S13) Pgs 2-8
- High Resolution Mass Spectrometry of Zwitterionic Cross-linker **1** (Fig S14) Pg 9

(5) *tert*-butyl (*tert*-butoxycarbonyl)-*L*-serinate

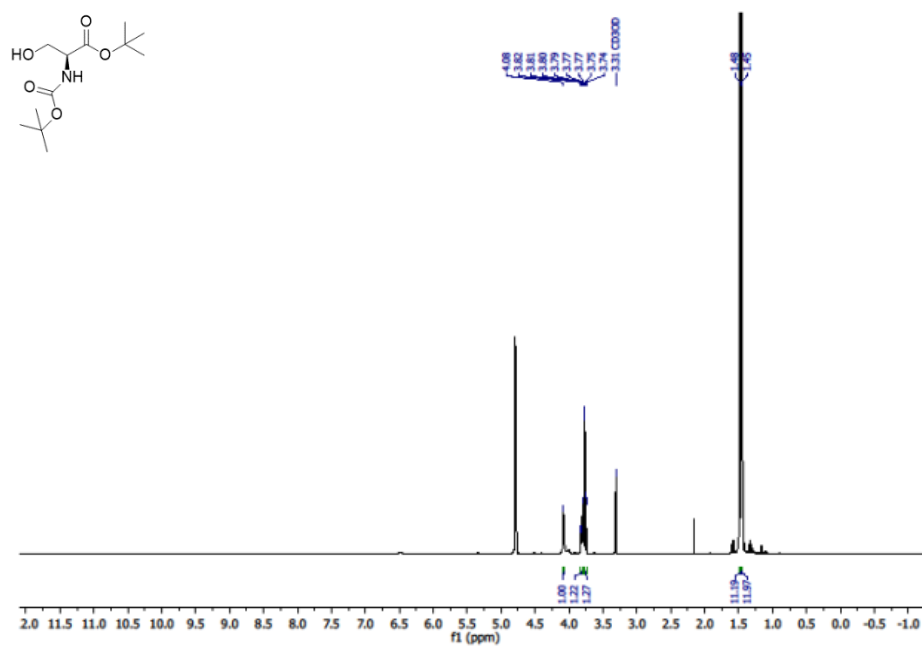


Figure S1: ¹H NMR of compound 5

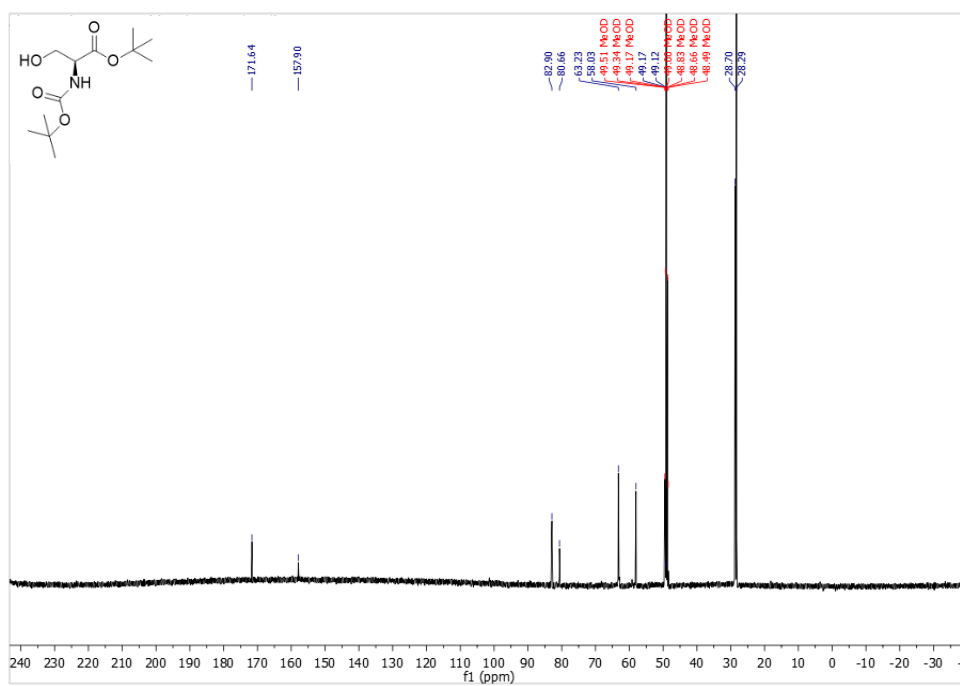


Figure S2: ¹³C NMR of compound 5

(6) (*S*)-3-(*tert*-butoxy)-2-((*tert*-butoxycarbonyl)amino)-3-oxopropyl methacrylate

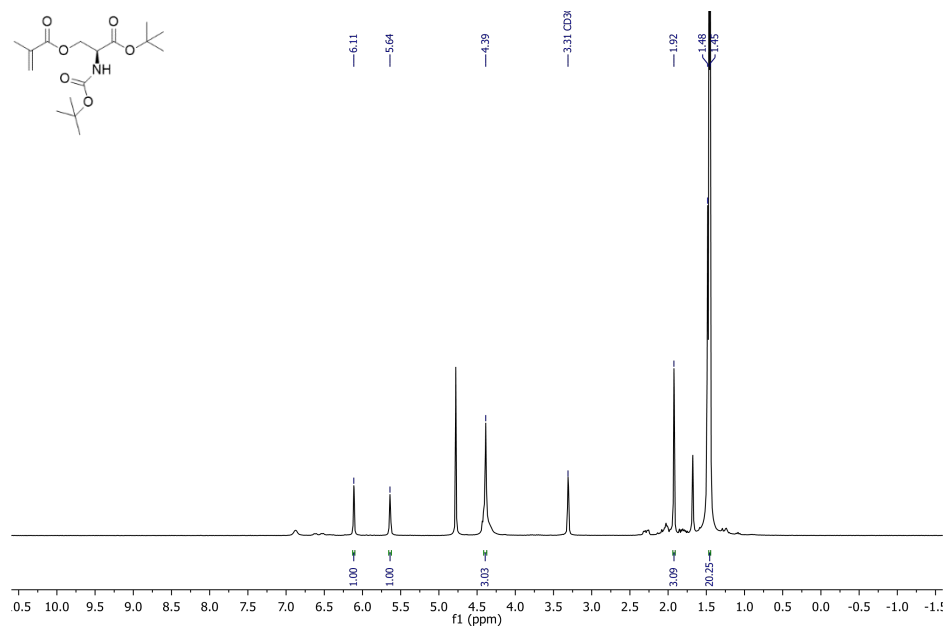


Figure S3: ¹H NMR of Compound 6

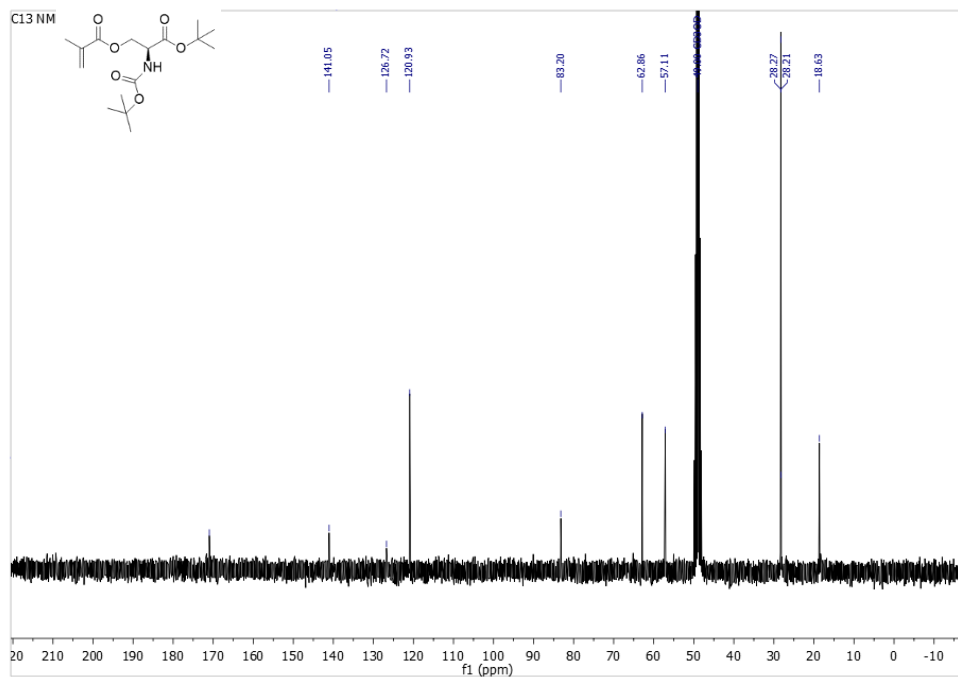


Figure S4: ¹³C NMR of Compound 6

(3) (*S*)-2-amino-3-(*tert*-butoxy)-3-oxopropyl methacrylate •TFA

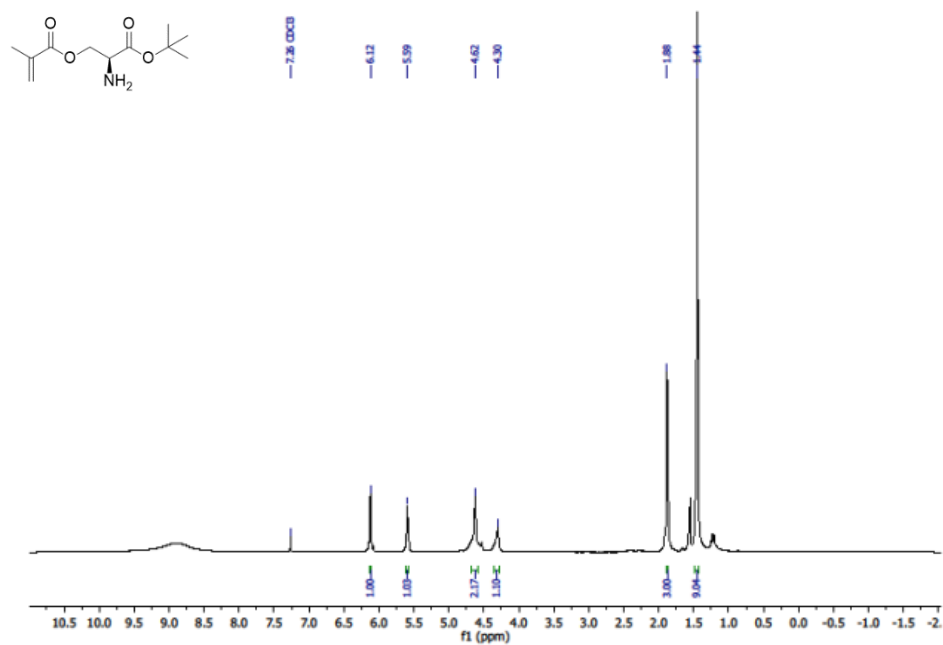


Figure S5: ^1H NMR of Compound 3

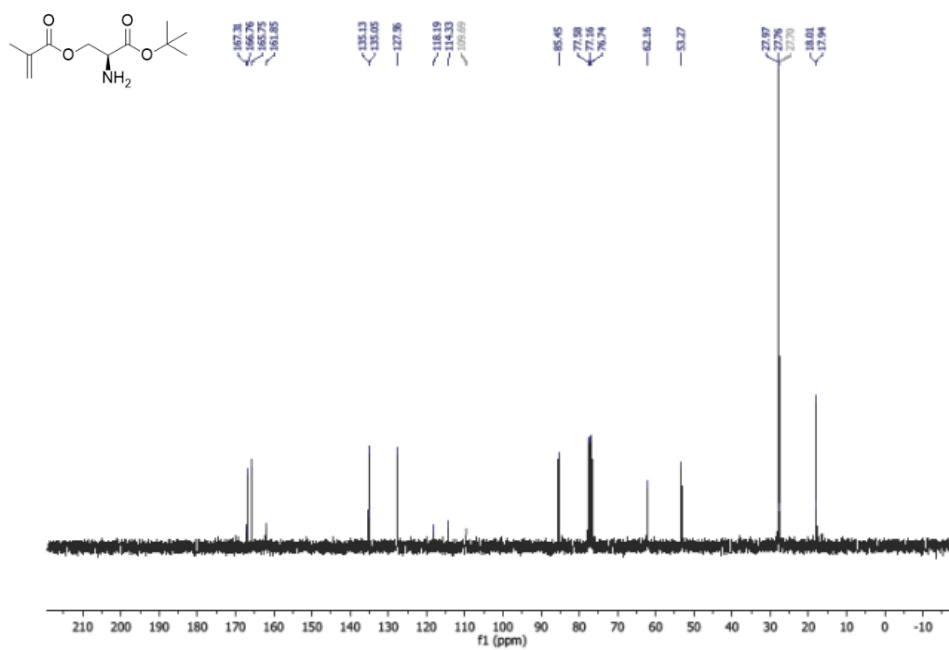


Figure S6: ^{13}C NMR of Compound 3

(4) *N*-(*tert*-butoxycarbonyl)-*O*-methacryloyl-*L*-serine

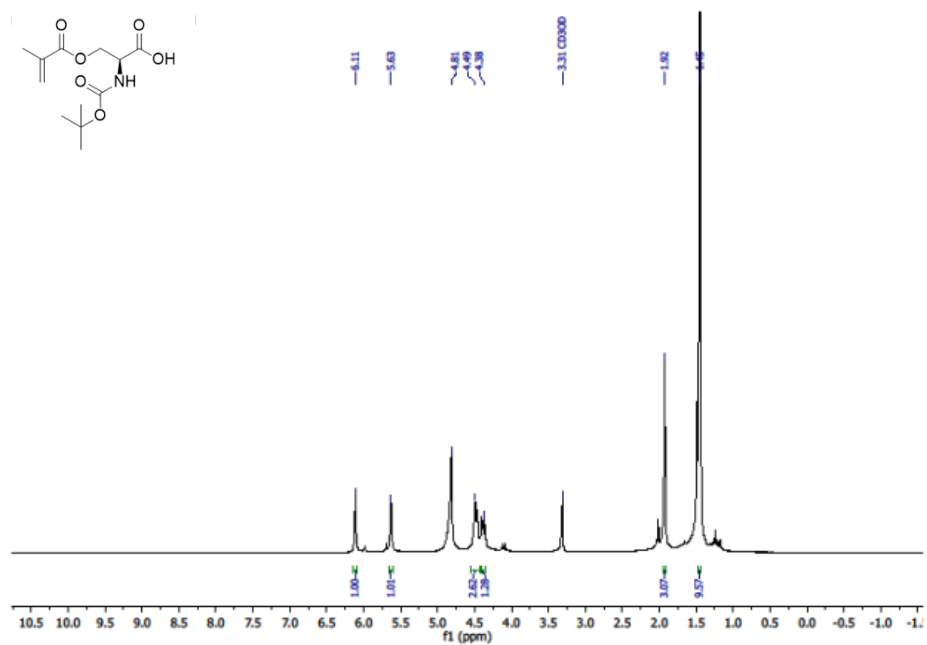


Figure S7: ¹H NMR of Compound 4

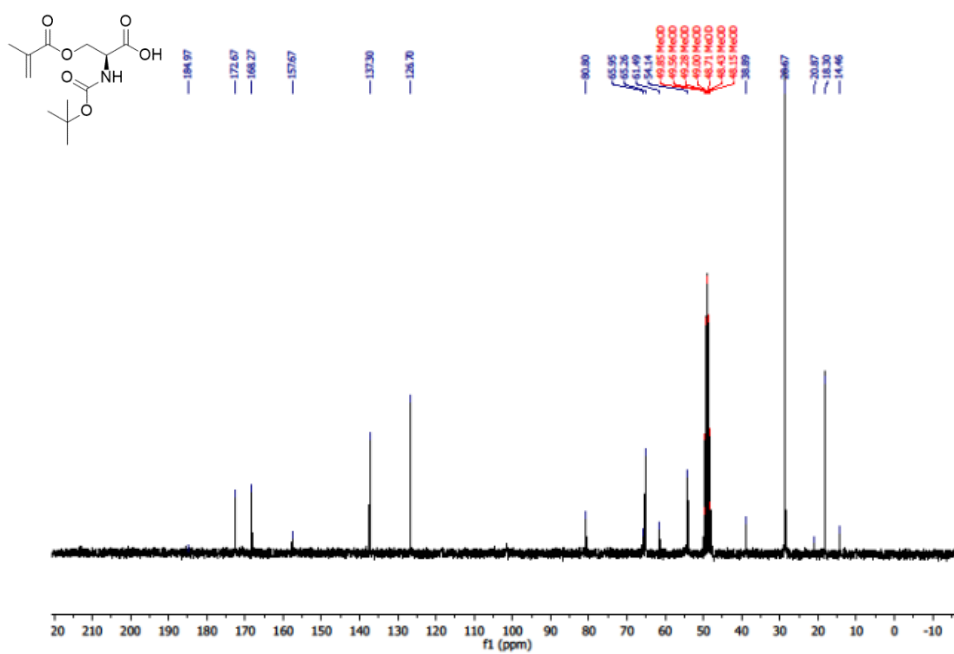


Figure S8: ¹³C NMR of compound 4

(7) 3-(*tert*-butoxy)-2-((*S*)-2-((*tert*-butoxycarbonyl)amino)-3-(methacryloyloxy)propanamido)-3-oxopropyl methacrylate

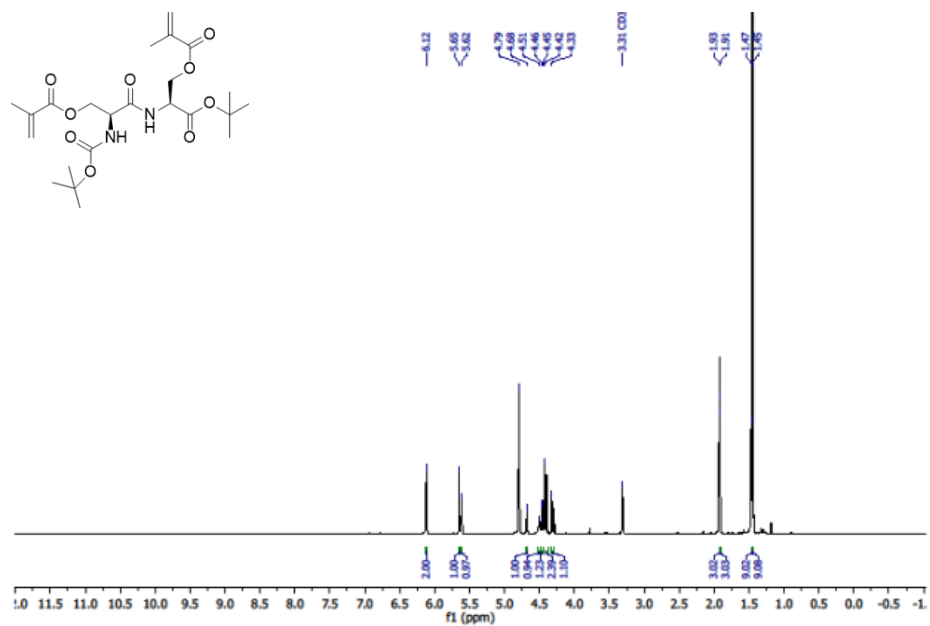


Figure S9: ^1H NMR of compound 7

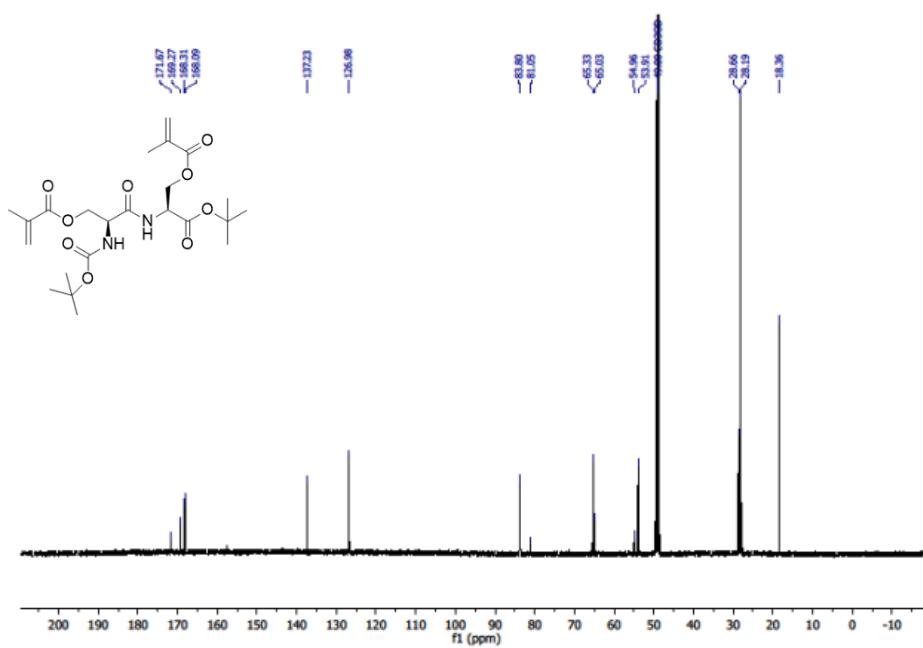


Figure S10: ^{13}C NMR of compound 7

(1) *O*-methacryloyl-*N*-(*O*-methacryloyl-*L*-seryl)-*L*-serine • TFA

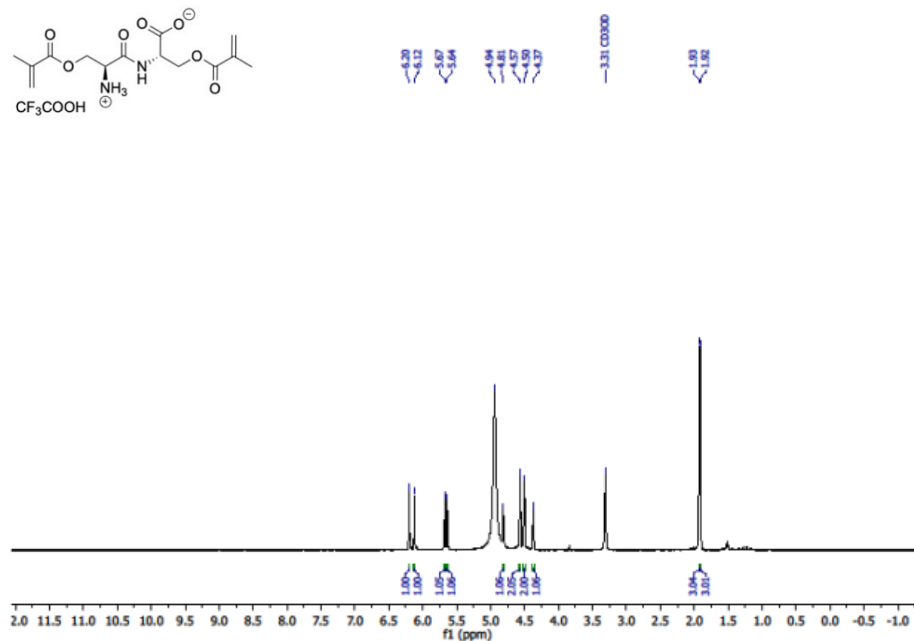


Figure S11: ¹H NMR of title compound zwitterionic cross-linker **1** as TFA salt

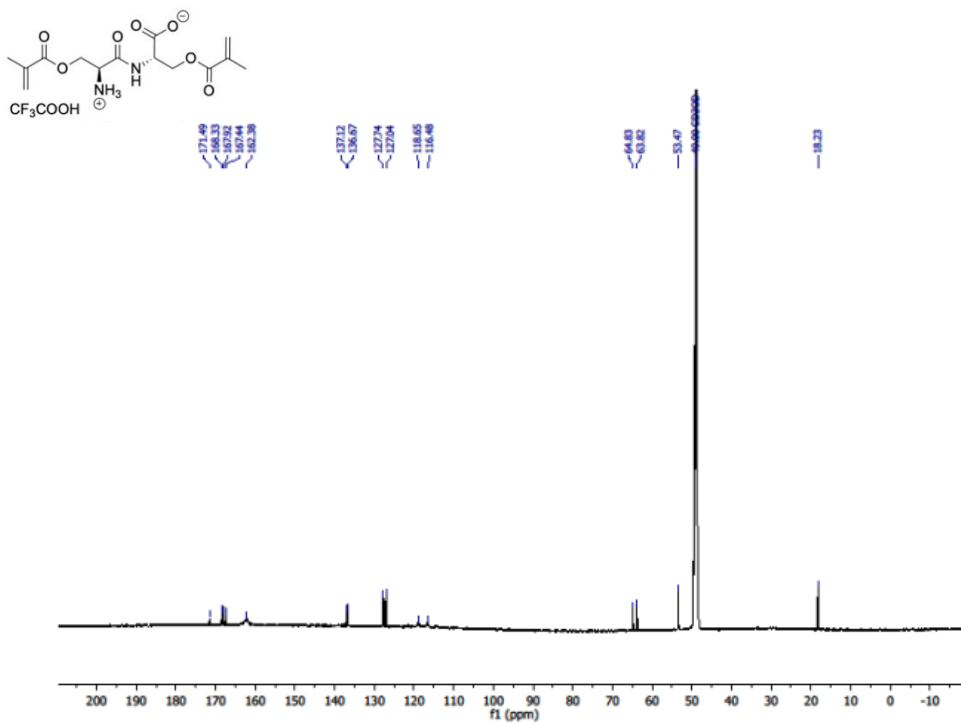


Figure S12: ¹³C NMR of zwitterionic cross-linker **1** as TFA salt.

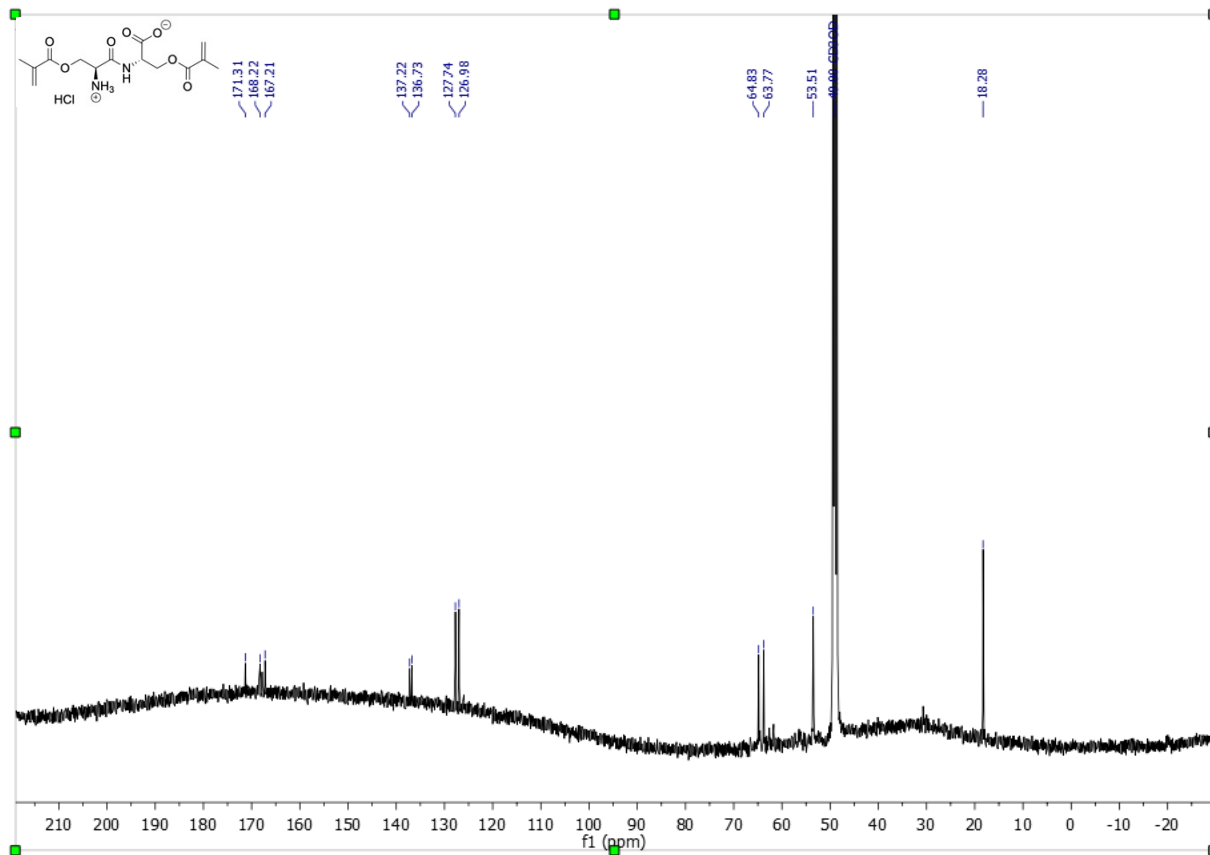


Figure S13: ^{13}C NMR of zwitterionic crosslinker **1** as HCl salt.

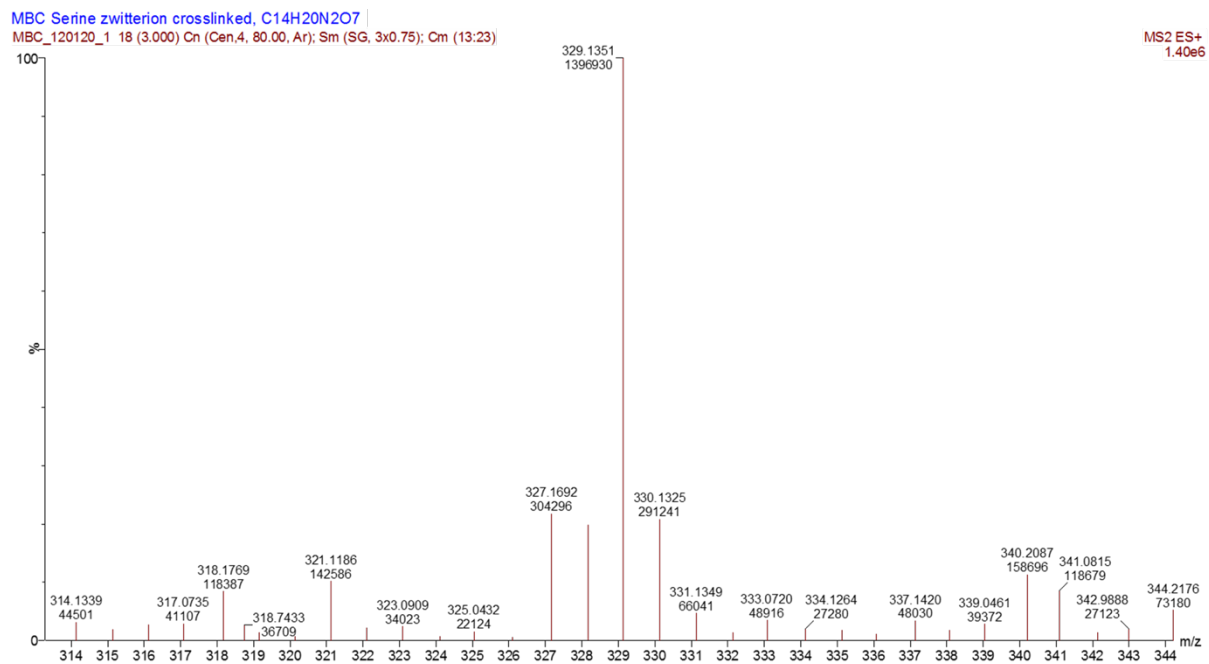


Figure S14: HRMS-ESI of the zwitterionic cross-linker (**1**). C₁₄H₂₀N₂O₇ Calculated as 329.13; found 329.1351.