

Elucidating the Role of Optical Activity of Polymers in Protein-Polymer Interactions

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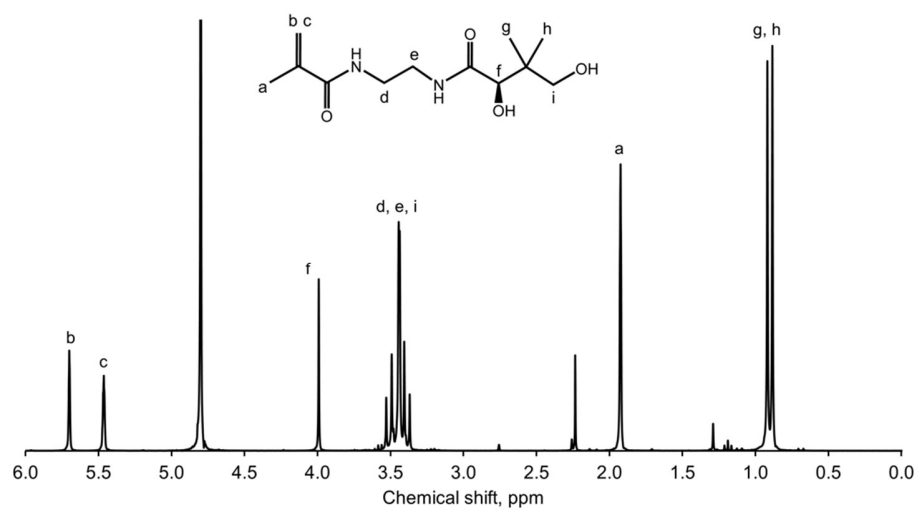


Figure S1: ¹H NMR spectrum of *R*-(+)-B5AMA monomer.

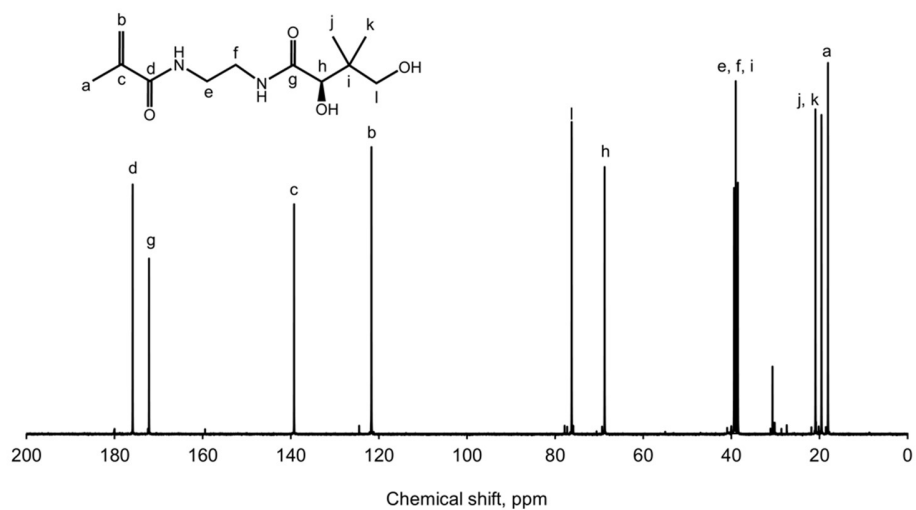


Figure S2: ¹³C NMR spectrum of *R*-(+)-B5AMA monomer.

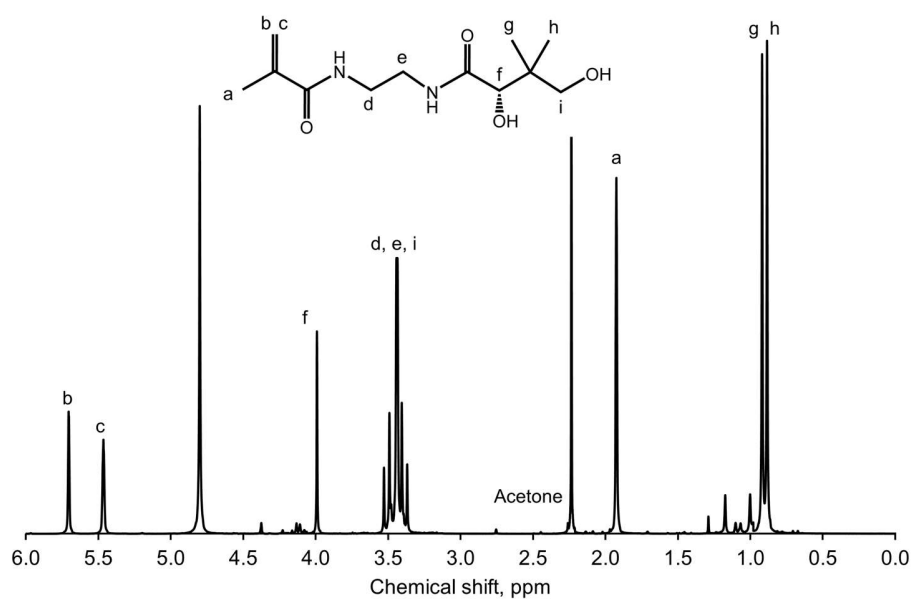


Figure S3: ¹H NMR spectrum of *S*-(-)-B5AMA monomer.

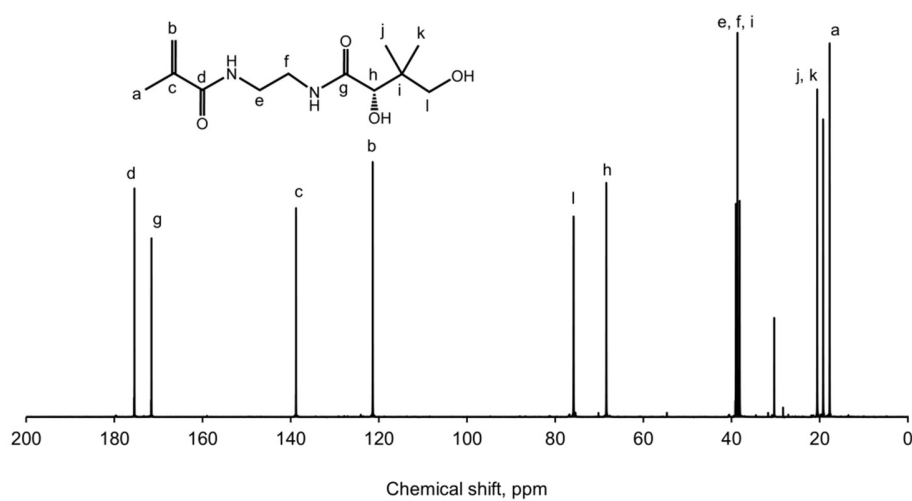


Figure S4: ¹³C NMR spectrum of *S*-(-)-B5AMA monomer.

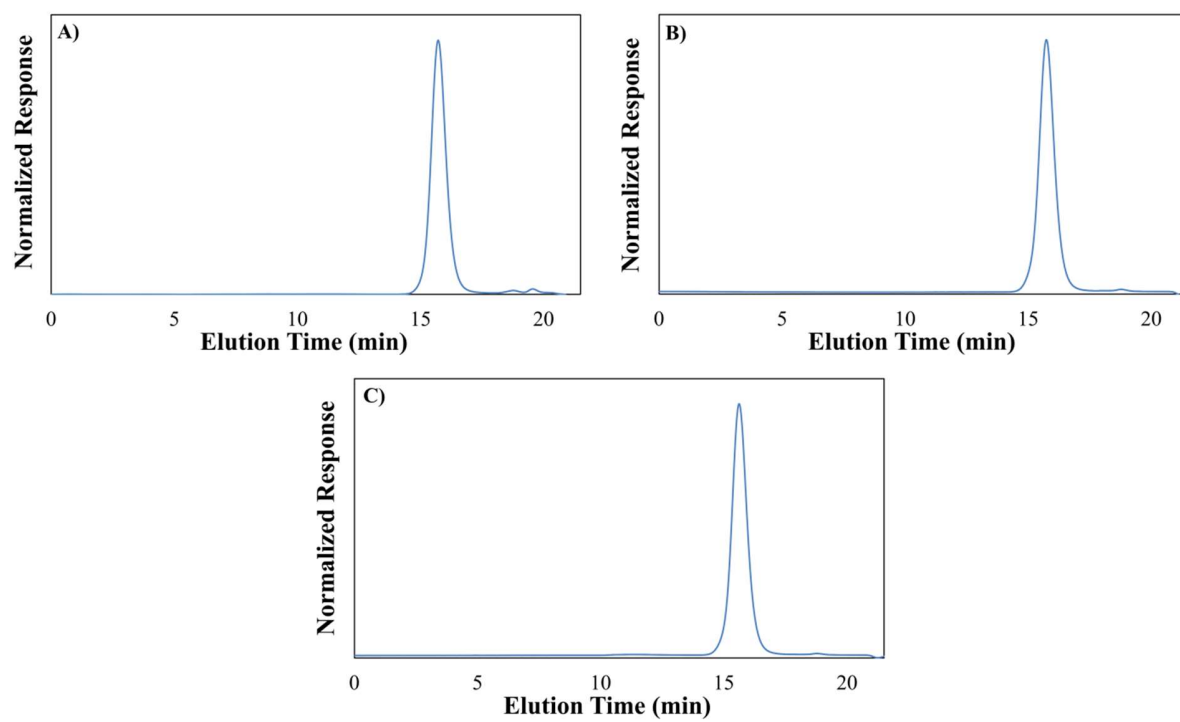


Figure S5: GPC Traces of poly(*R*-(+)-B5AMA₃₈) A), poly(*S*-(-)-B5AMA₃₈) B), and poly(*R/S*-(+/-)-B5AMA₃₈) C).

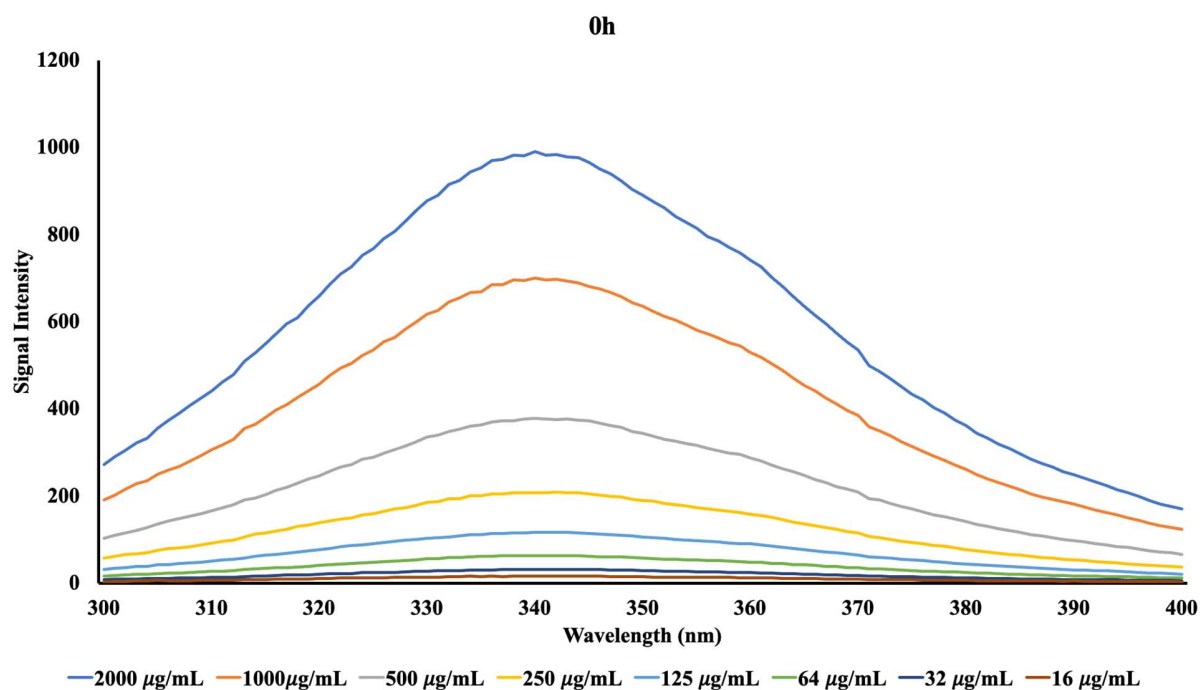


Figure S6: Fluorescence intensity of BSA Tryptophan residue as a function of concentration of protein at 0h. Excitation wavelength is 279 nm and emission spectra are recorded from 300-400 nm for BSA.

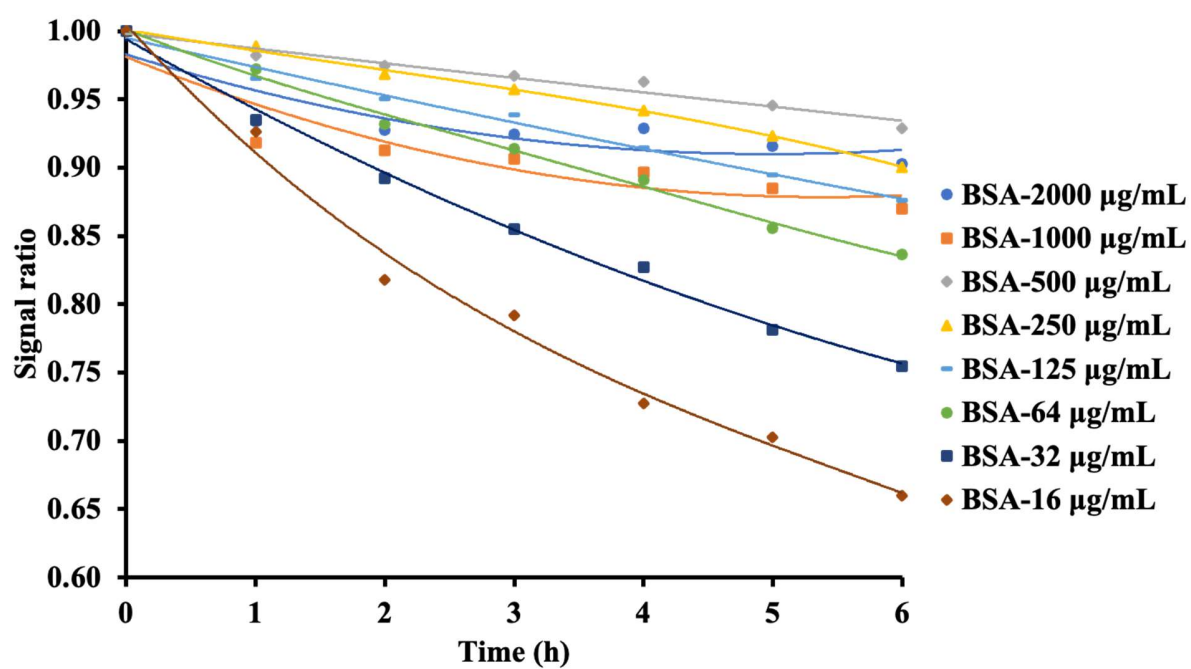


Figure S7: Normalized fluorescence signal of Trp residue of BSA at different concentrations of the protein.

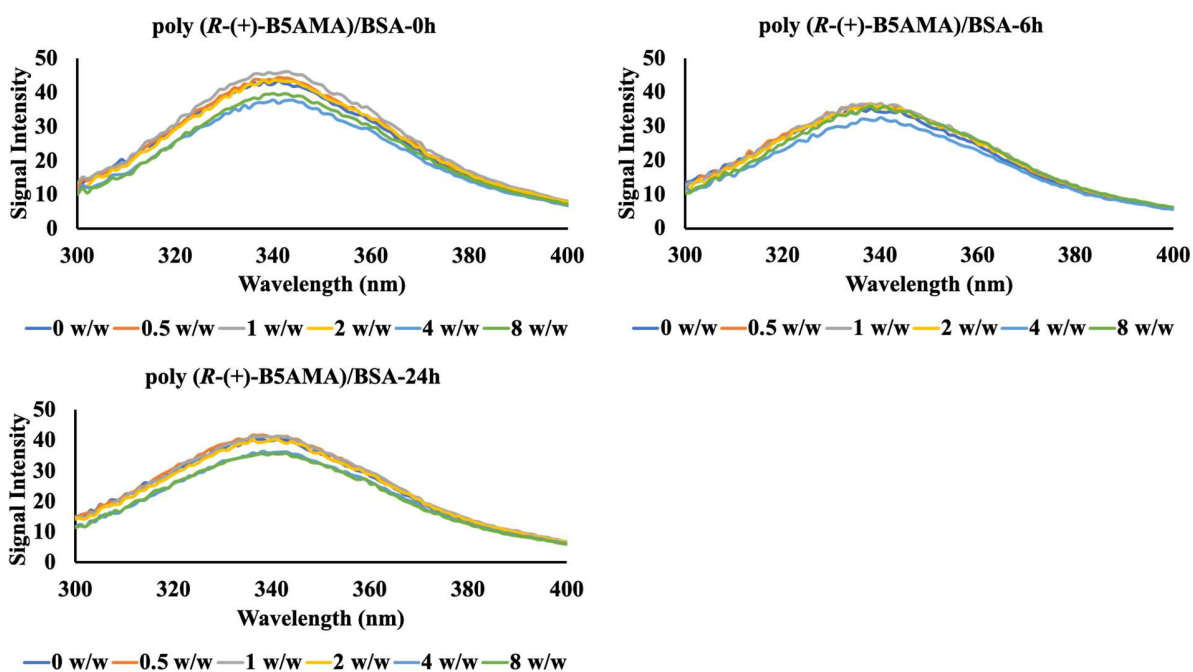


Figure S8: Fluorescence intensity of Trp residue of BSA, at different w/w ratios of poly (*R*-(+)-B5AMA)/BSA. The fluorescence spectra is obtained at excitation wavelength of 279 nm and emission wavelength is 300-400nm at different time points.

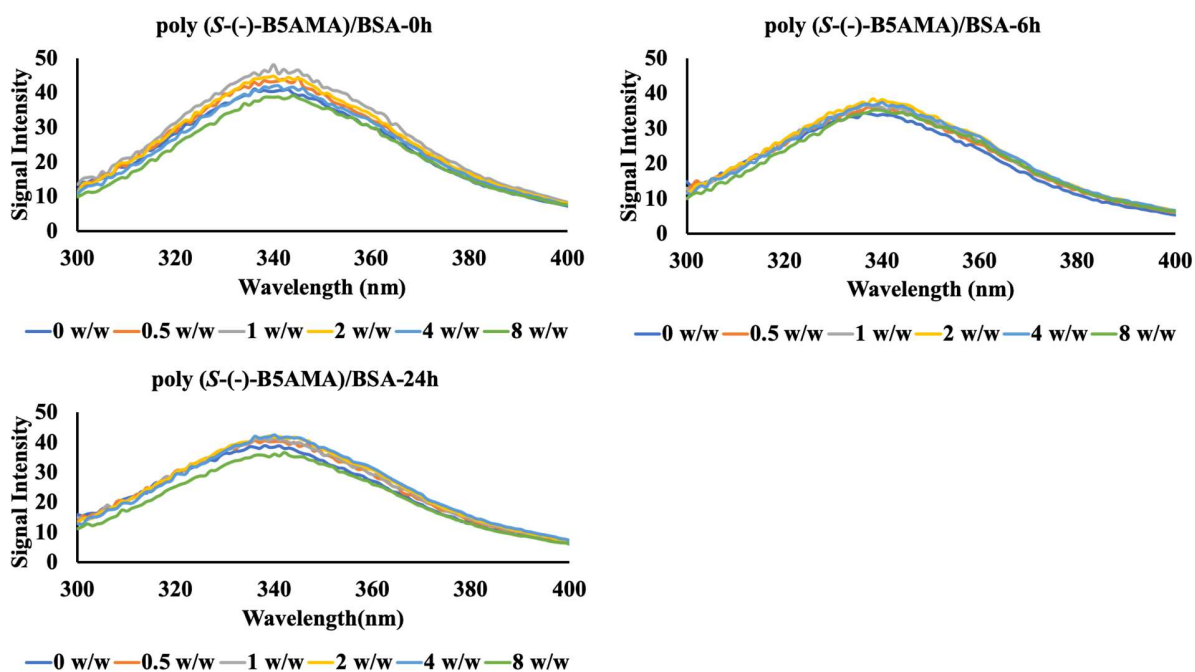


Figure S9: Fluorescence intensity of Trp residue of BSA, at different w/w ratios of poly (*S*-(-)-B5AMA)/BSA. The fluorescence spectra is obtained at excitation wavelength of 279 nm and emission wavelength is 300-400nm at different time points.

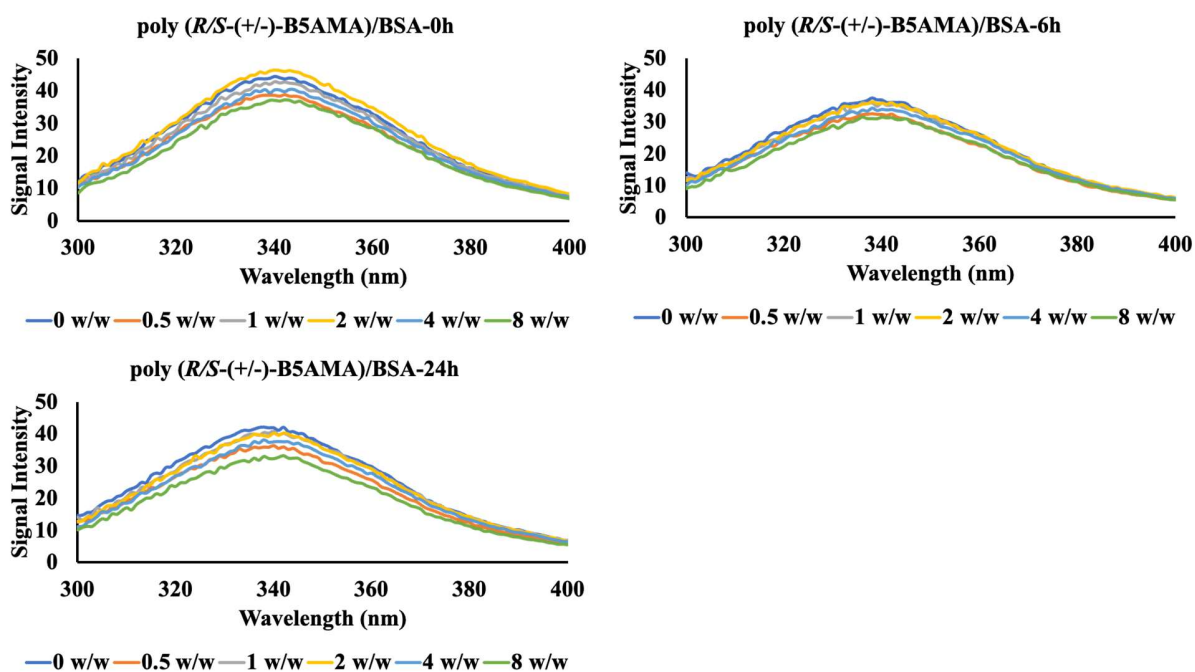


Figure S10: Fluorescence intensity of Trp residue of BSA, at different w/w ratios of poly (R/S-(+/-)-B5AMA)/BSA. The fluorescence spectra is obtained at excitation wavelength of 279 nm and emission wavelength is 300-400nm at different time points.

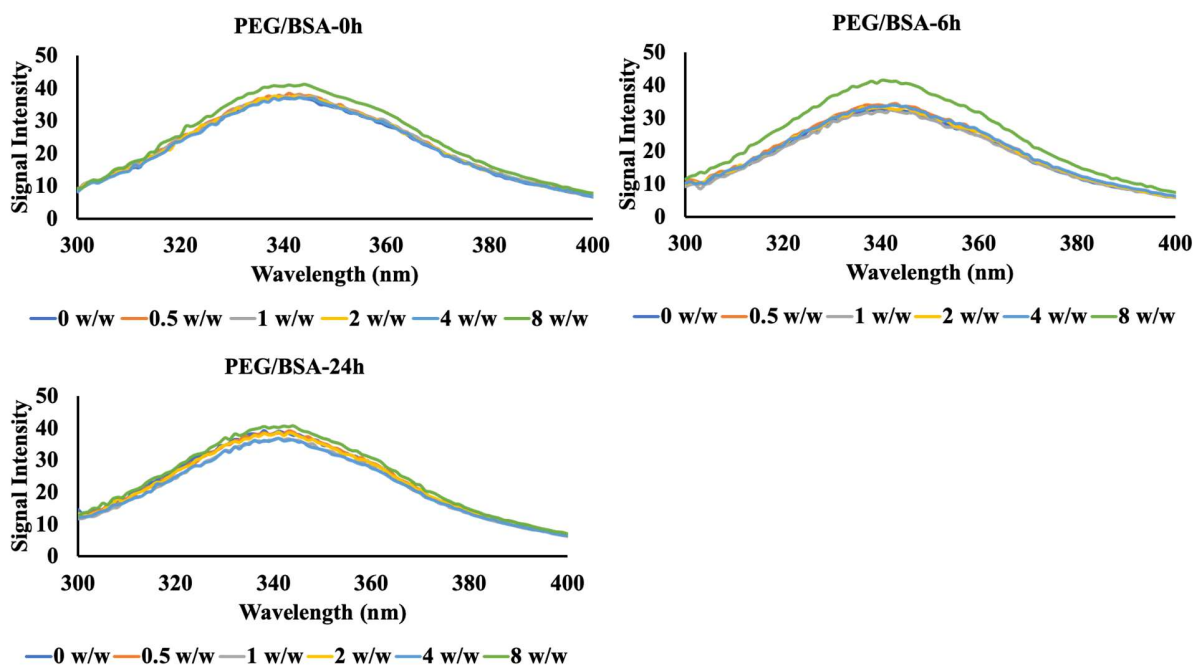


Figure S11: Fluorescence intensity of Trp residue of BSA, at different w/w ratios of PEG/BSA.

The fluorescence spectra is obtained at excitation wavelength of 279 nm and emission wavelength is 300-400nm at different time points.

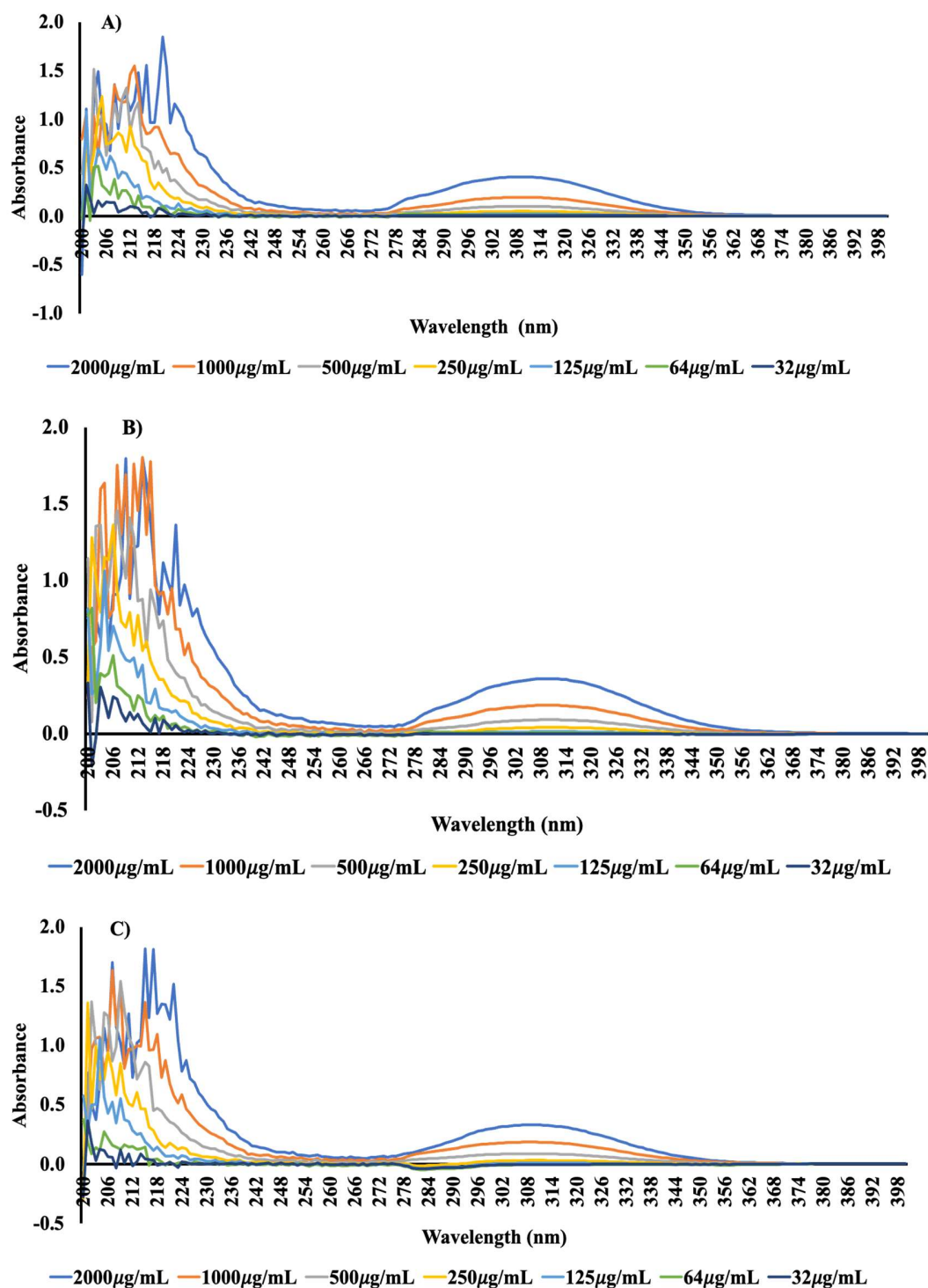


Figure S12: Poly (*R*-(+)-B5AMA) A), poly (*S*-(-)-B5AMA) B), and poly (*R/S*-(+/-)-B5AMA) C) absorbance spectrum from 200 to 400nm.

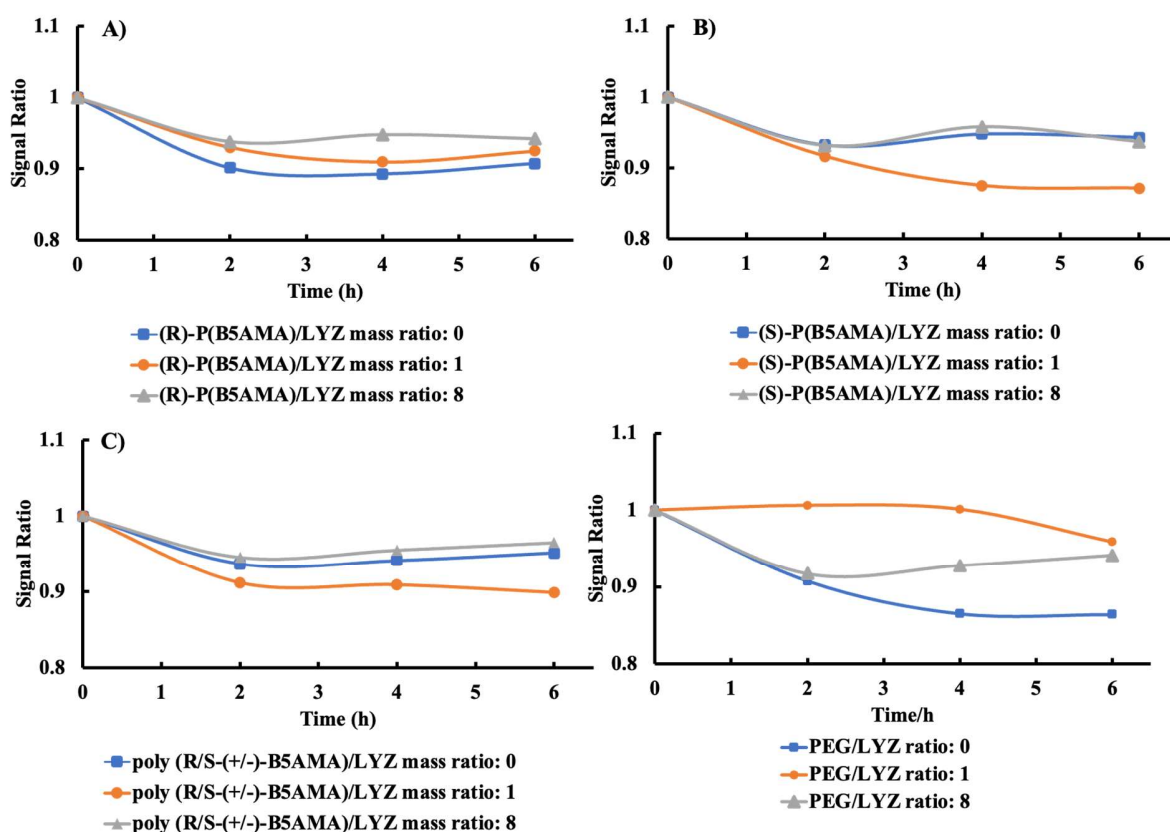


Figure S13: Normalized fluorescence intensity of LYZ with and without poly (*R*-(+)-B5AMA) A), poly (*S*-(-)-B5AMA) B), poly (*R/S*-(+/-)-B5AMA) C), and PEG D). Normalized fluorescence intensity is determined at polymer: protein ratio of 1:1 and 1:8 and at different time points.

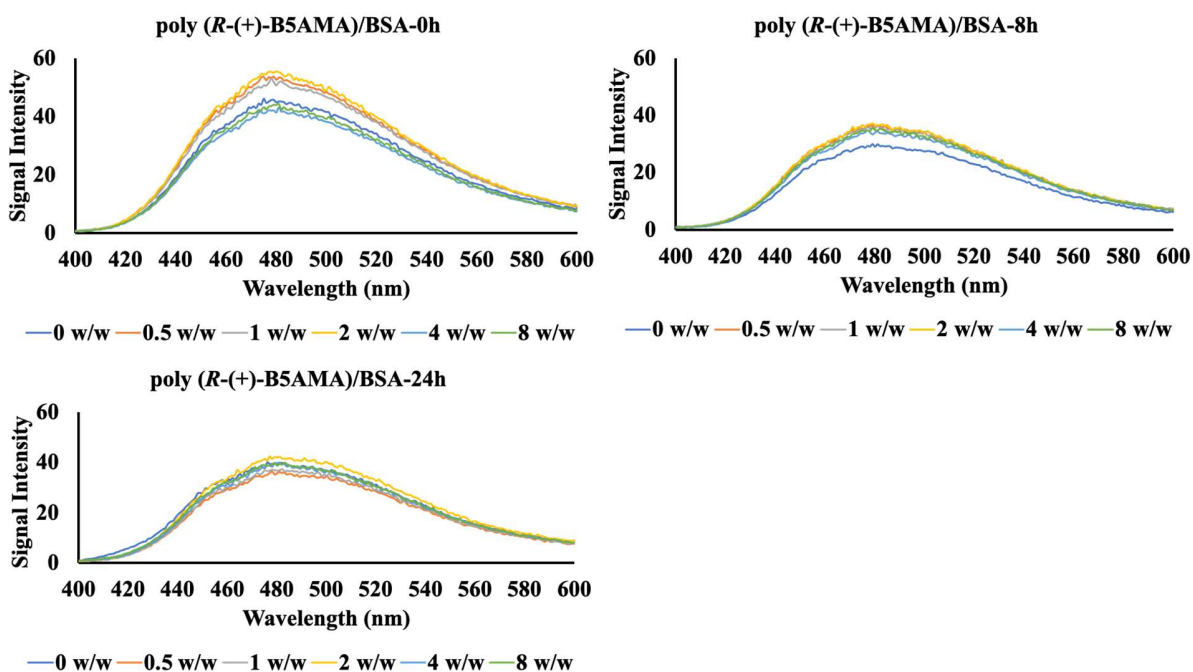


Figure S14: Fluorescence intensity of ANS upon interaction with BSA, at different w/w ratios of poly (R-(+)-B5AMA)/BSA. The fluorescence spectra is obtained at excitation wavelength of 279 nm and emission wavelength is 300-400nm at different time points.

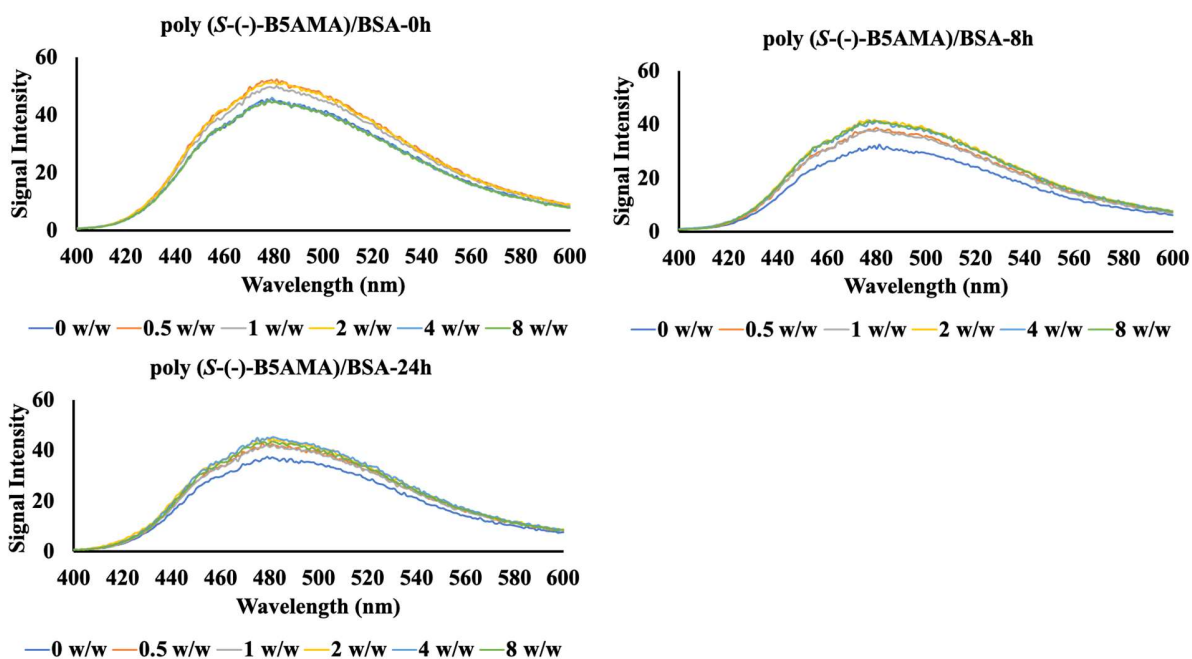


Figure S15: Fluorescence intensity of ANS upon interaction with BSA, at different w/w ratios of poly (S-(-)-B5AMA)/BSA. The fluorescence spectra is obtained at excitation wavelength of 279 nm and emission wavelength is 300-400nm at different time points.

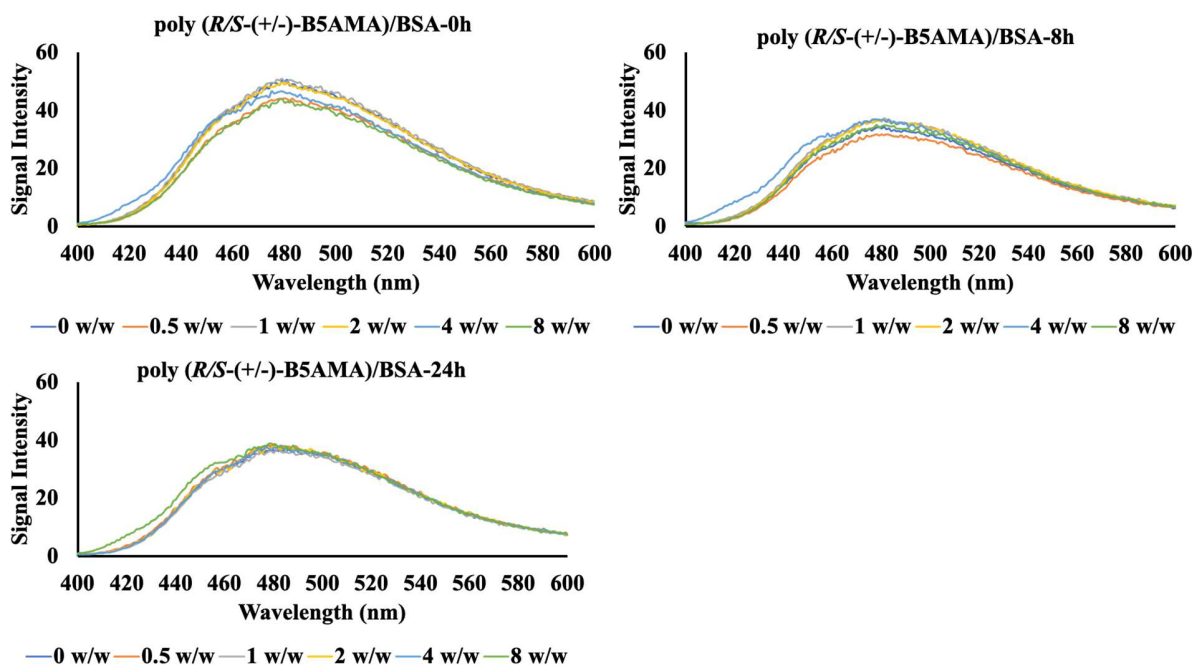


Figure S16: Fluorescence intensity of ANS upon interaction with BSA, at different w/w ratios of poly(*R/S*-(+/-)-B5AMA)/BSA. The fluorescence spectra is obtained at excitation wavelength of 279 nm and emission wavelength is 300-400nm at different time points.

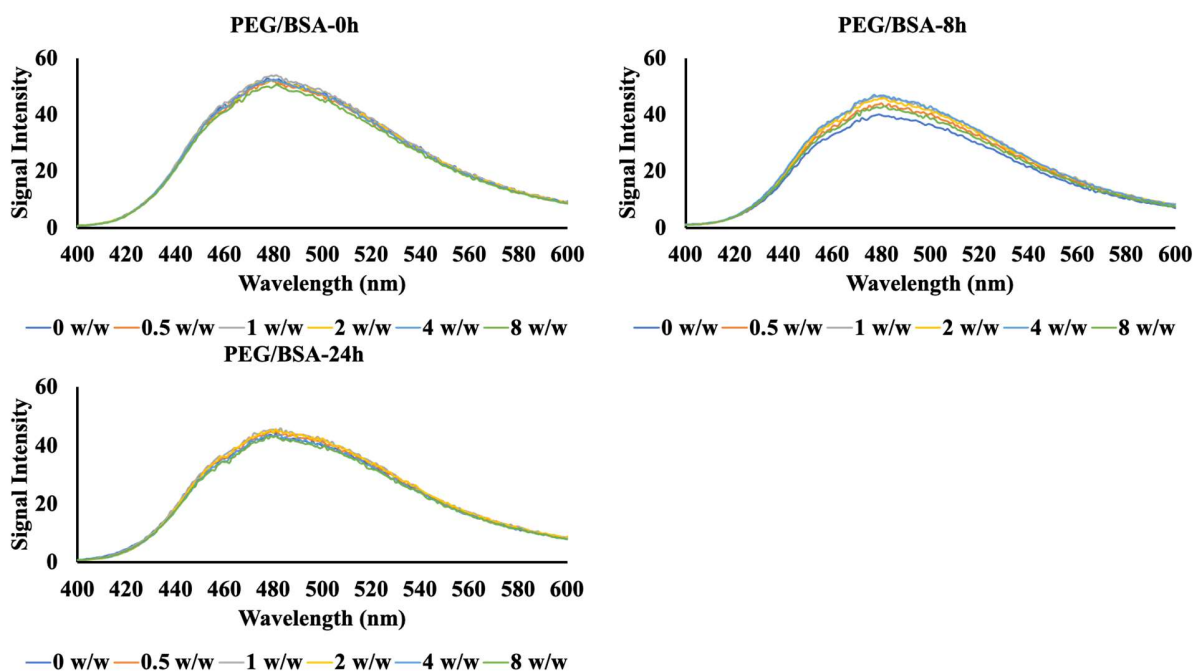


Figure S17: Fluorescence intensity of ANS upon interaction with BSA, at different w/w ratios of PEG/BSA. The fluorescence spectra is obtained at excitation wavelength of 279 nm and emission wavelength is 300-400nm at different time points.

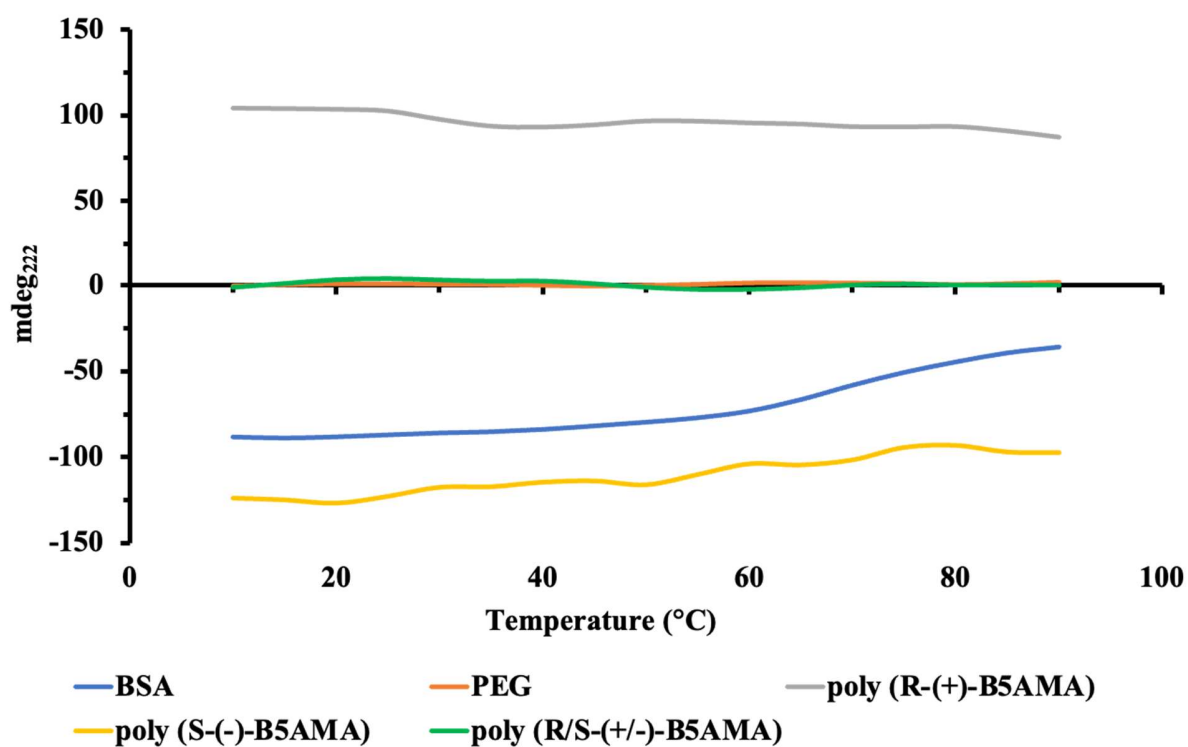


Figure S18: CD measurements at 222 nm during thermal denaturation of each polymer with a final concentration of 4 mg/mL.