Supplementary File

NMR analysis to confirm π - π interactions, aromatic hydrophobic interactions:

Commercial samples of poly(NaSS), $\bar{M}$~70,000 Da obtained from Sigma-Aldrich and poly(DMA), $\bar{M}$~100,000 Da, obtained from Scientific Polymer Products, Inc. (Ontario, NY) were used for proton NMR analysis. Aromatic protons of MB are labelled as H_1, H_2 and H_3, which showed broadening of signals in the presence of aromatic polymer like poly(NaSS) whereas no peak broadening of signals observed in poly(DMA) solutions. Signal broadening confirmed the π - π interaction and delocalization of electron clouds as part of aromatic hydrophobic interactions between poly(NaSS) and MB. Signal broadening of MB proton signals was not observed for co-solutions of poly(DMA) and MB.

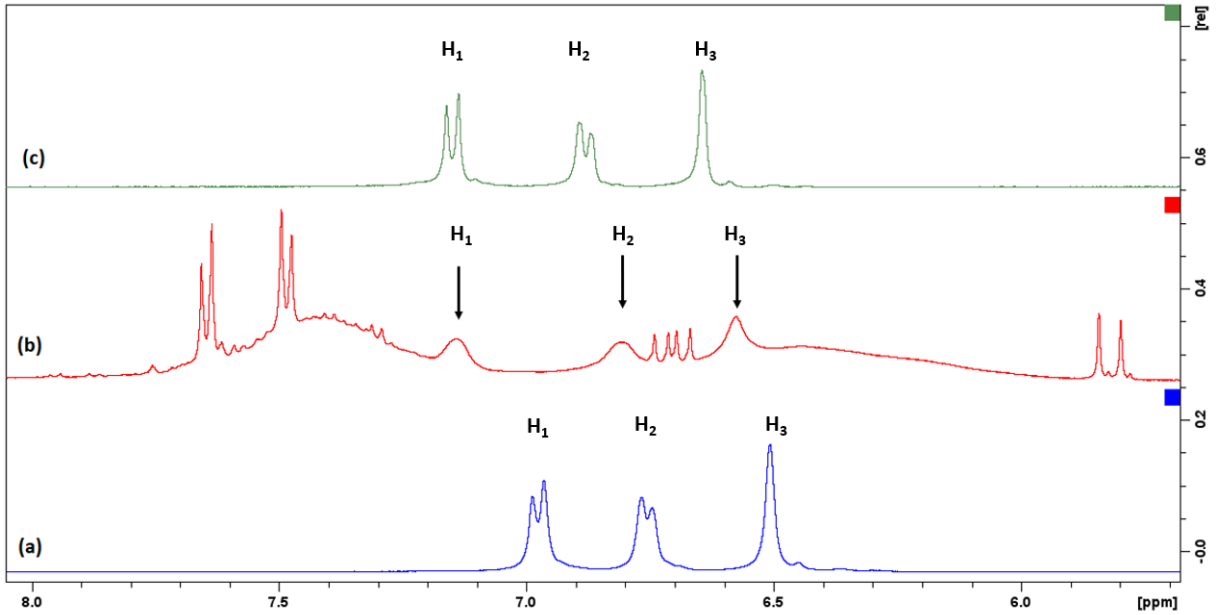

Figure S1- ^{1}H NMR spectra comparison for (a) 10^{-3} M of MB solution in D_2O, (b) 10^{-3} M of MB in solution with 10^{-2} M poly (NaSS) and (c) 10^{-3} M of MB in solution with 10^{-2} M poly (DMA)

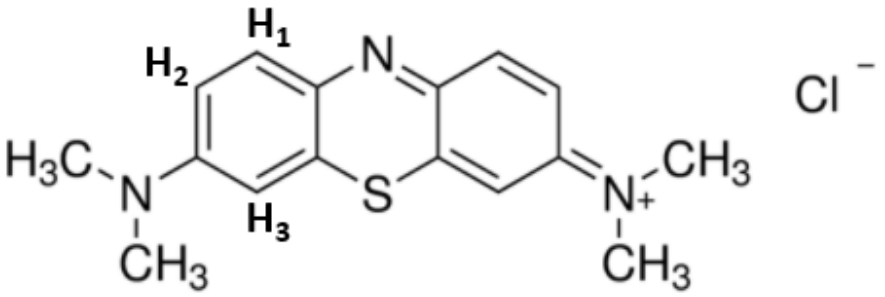

Figure S2 – Chemical structure of MB dye