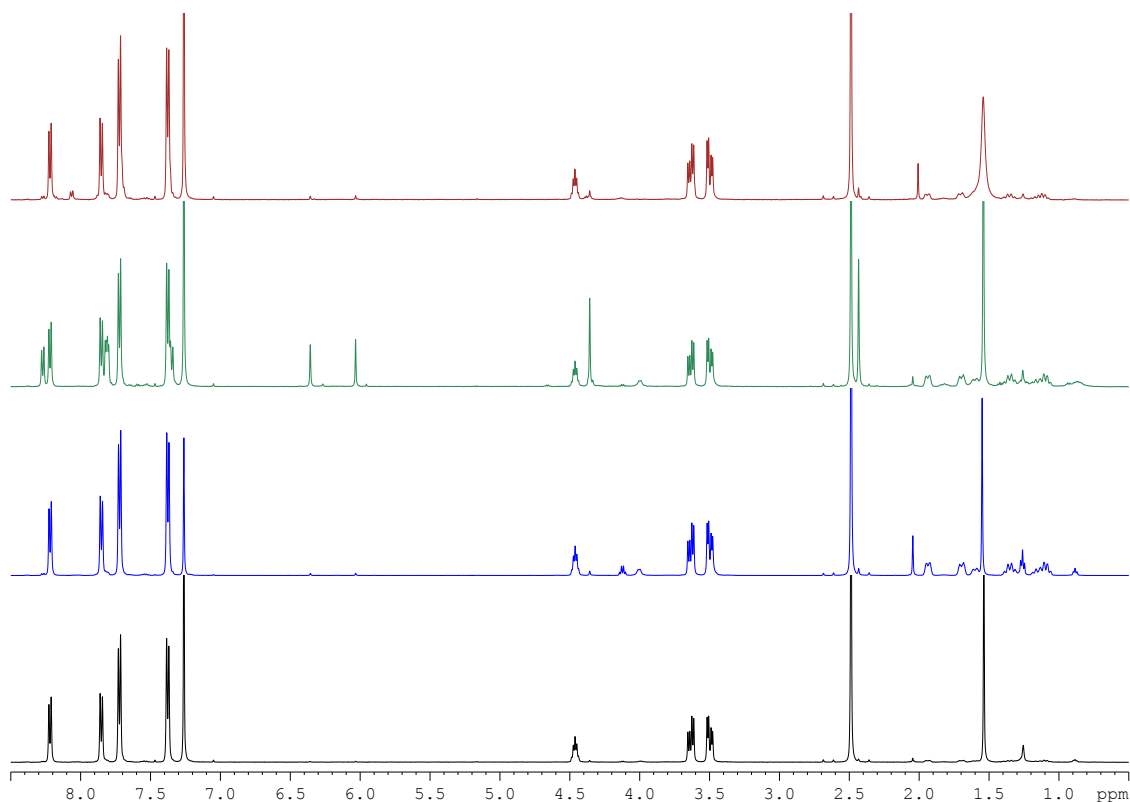


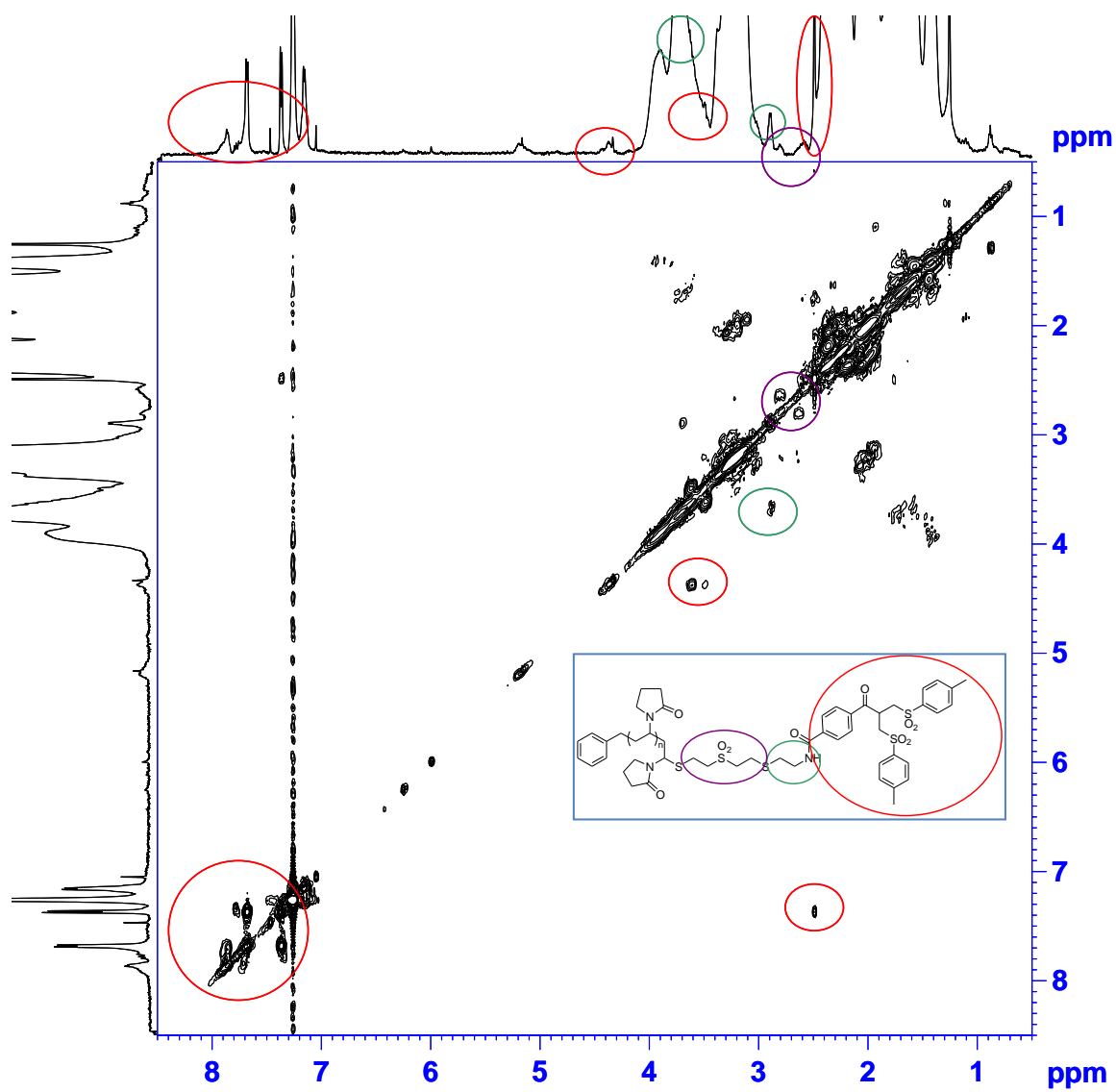
## SUPPORTING INFORMATION

### Disulfide bridge based conjugation of peptides to RAFT polymers

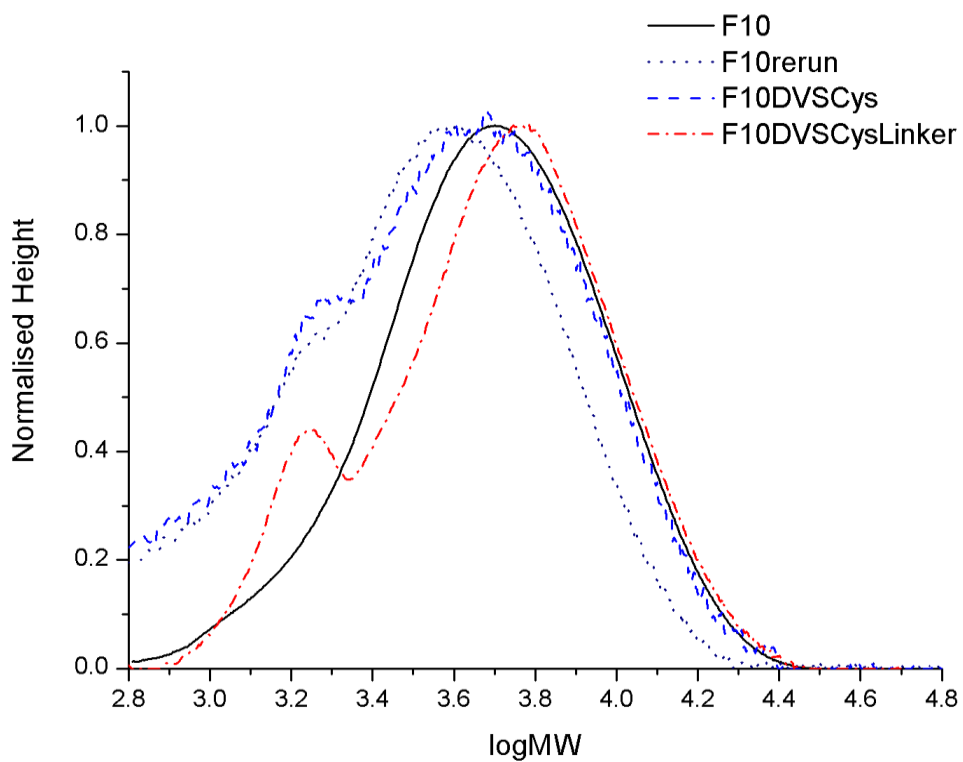
Lyndal McDowall, Martina H. Stenzel



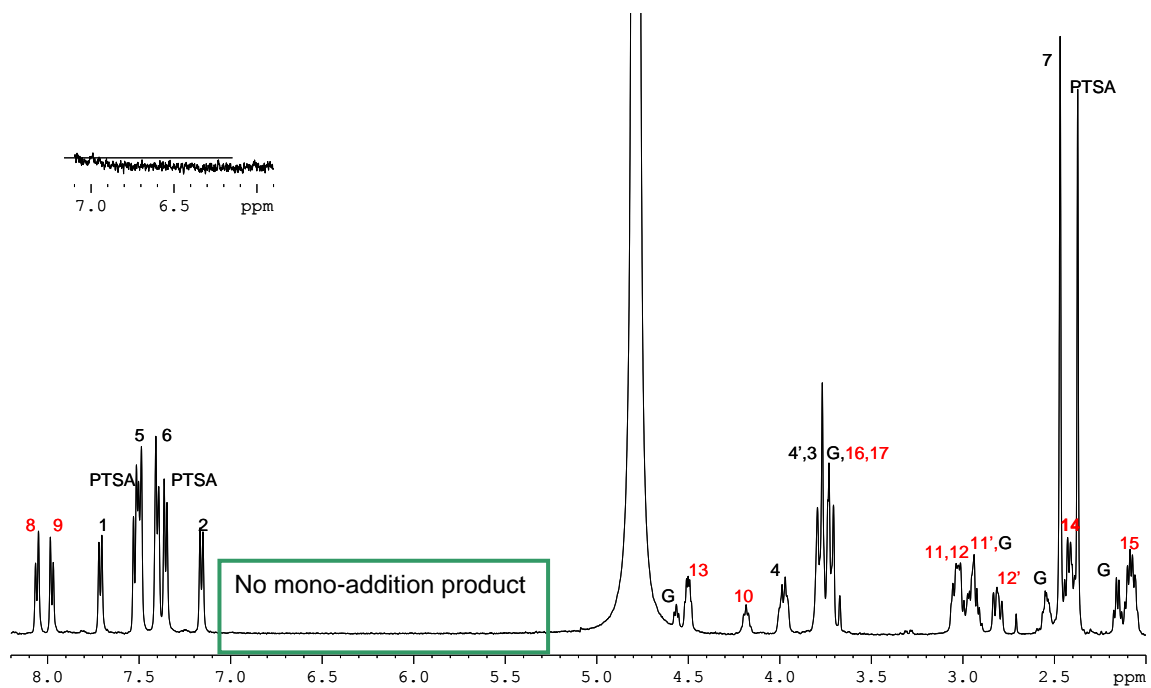
**Figure S1:** <sup>1</sup>H-NMR spectra of pentafluorophenyl-4-(2,2-bis[(p-tolylsulfonyl)methyl]acetyl) benzoate **4** from top to bottom: crude product (red), after column purification (green), after recrystallization (blue), after further treatment (black).

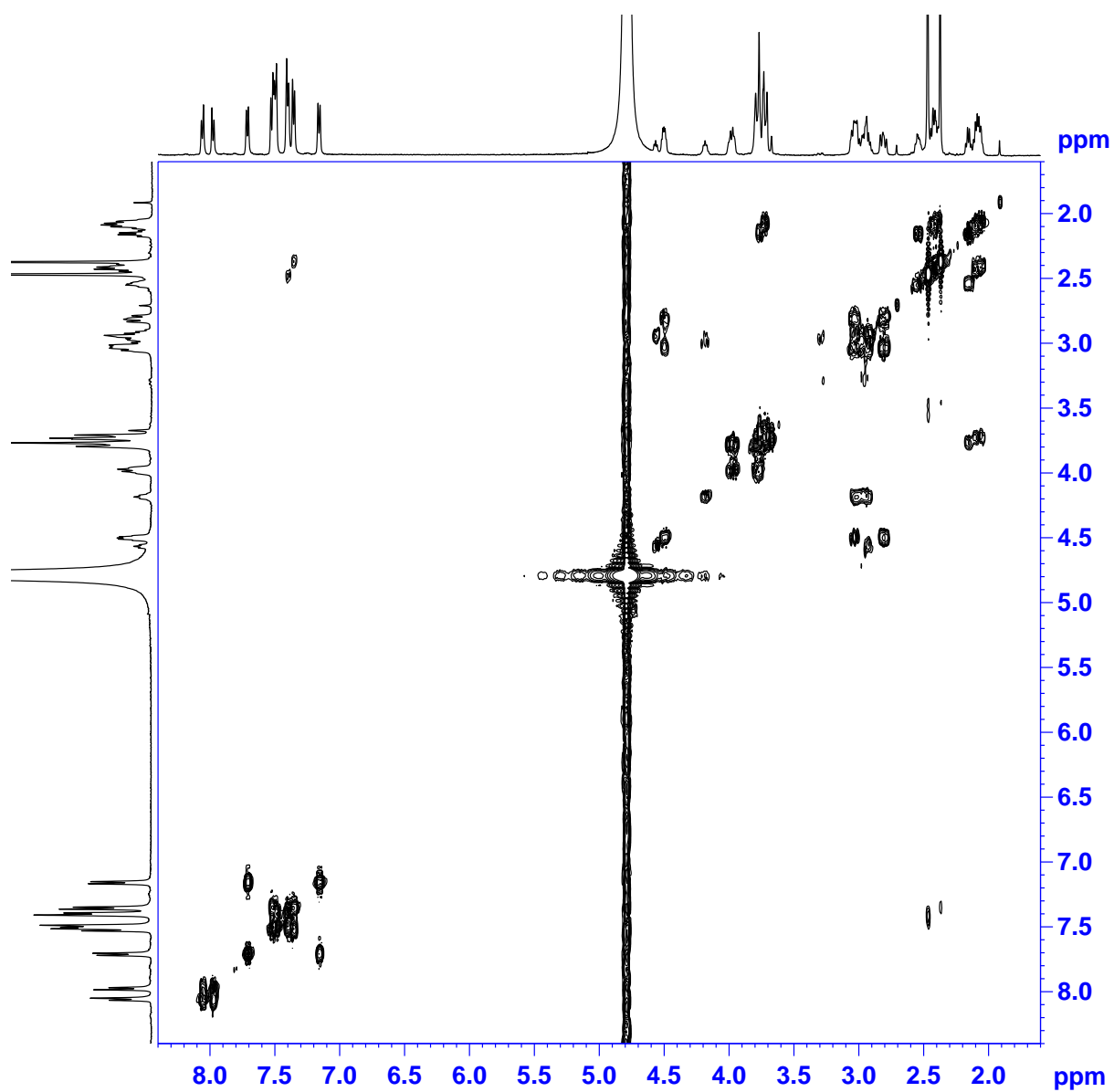


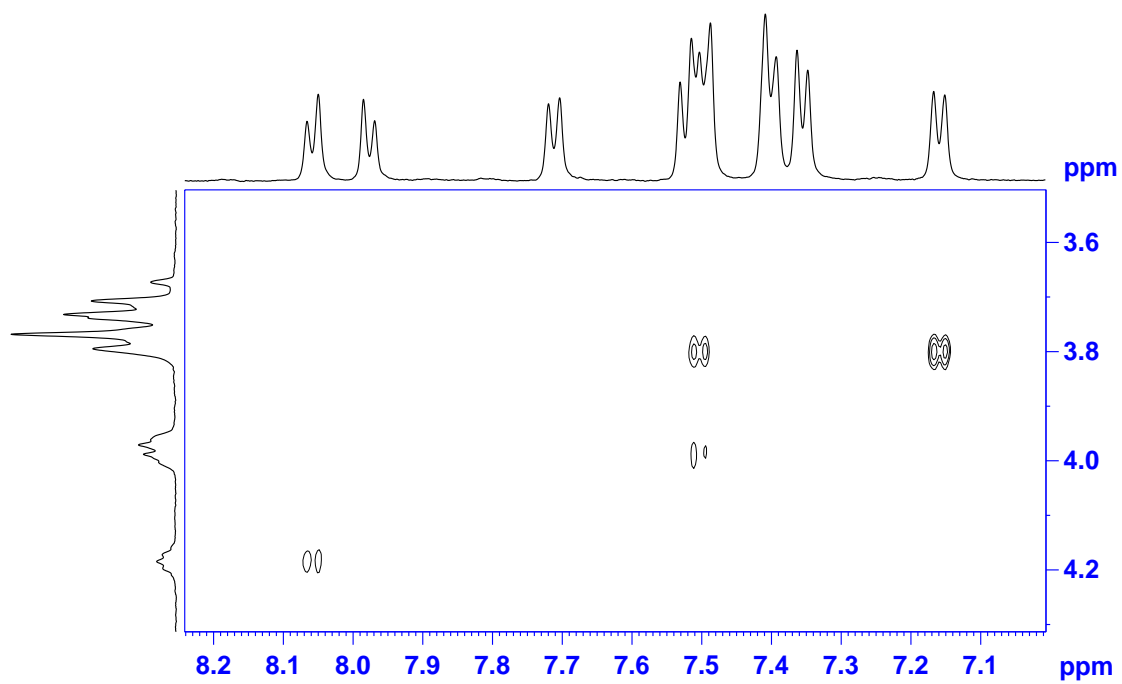
**Figure S2:** <sup>1</sup>H-COSY NMR of PVP with reactive bisulfone functionality **10** in CDCl<sub>3</sub>.



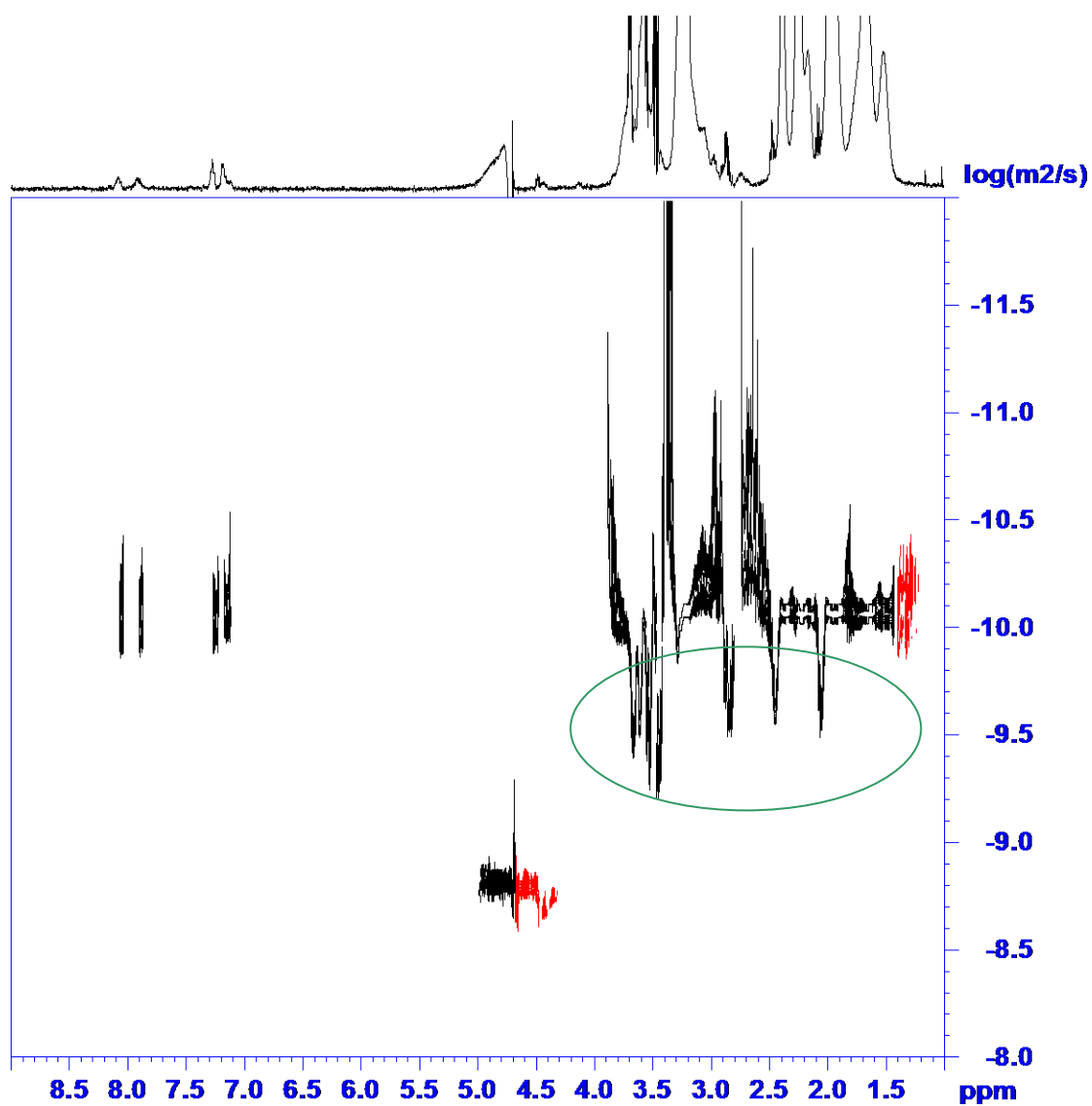
**Figure S3.** GPC traces for PVP ( $M_n(\text{NMR})=6,000 \text{ g mol}^{-1}$ ) (solid and dotted), PVPDVSCys **9** (blue) and PVP-DVSCysLinker **10** (red). Non-solid lines were analysed simultaneously and a system contaminant is present a logMW 3.2 (approx).



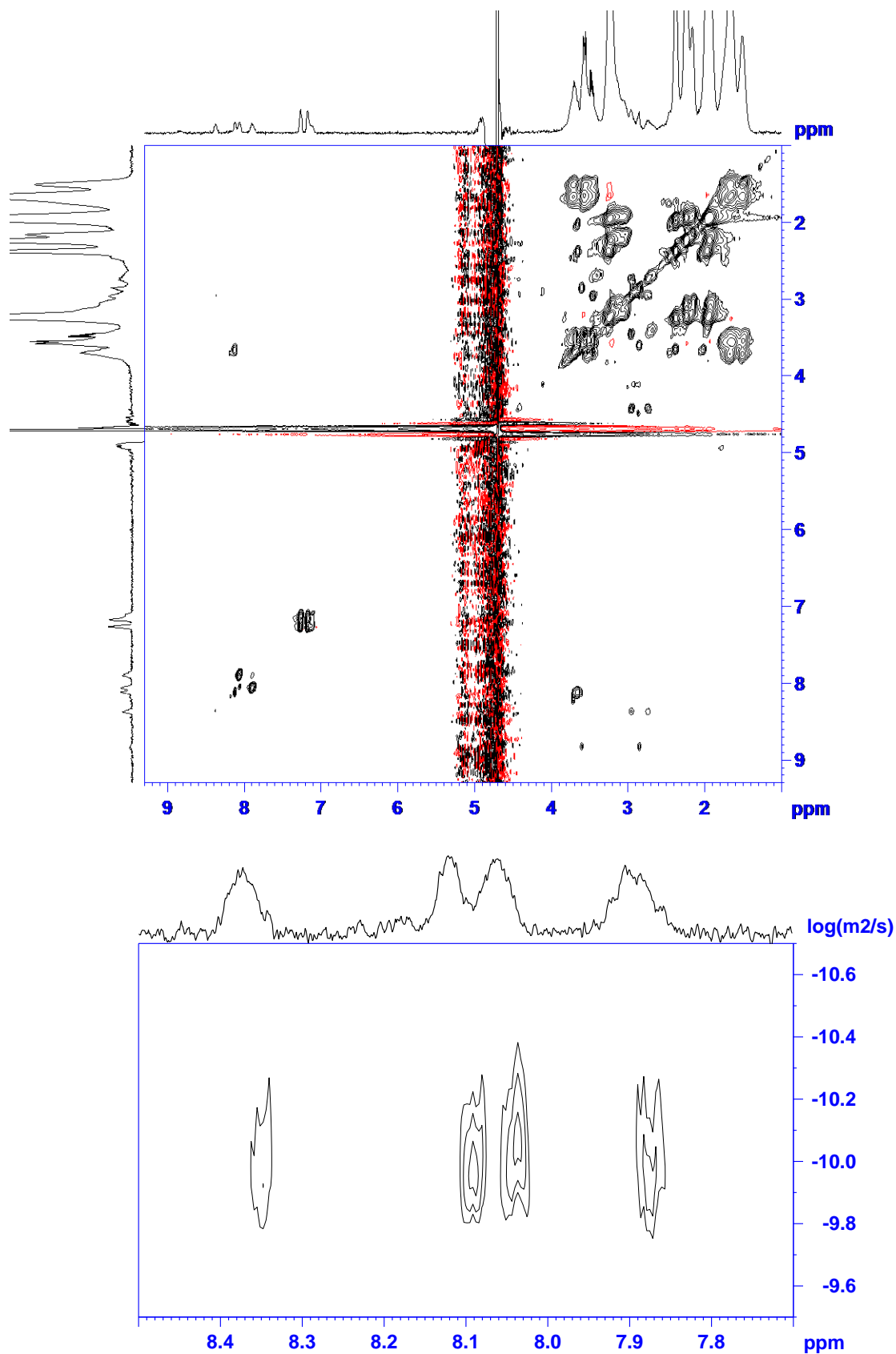




**Figure S4. NMR spectrum of Glutathione reaction with acid linker (<sup>1</sup>H (top), COSY (middle), NOESY (bottom)).**

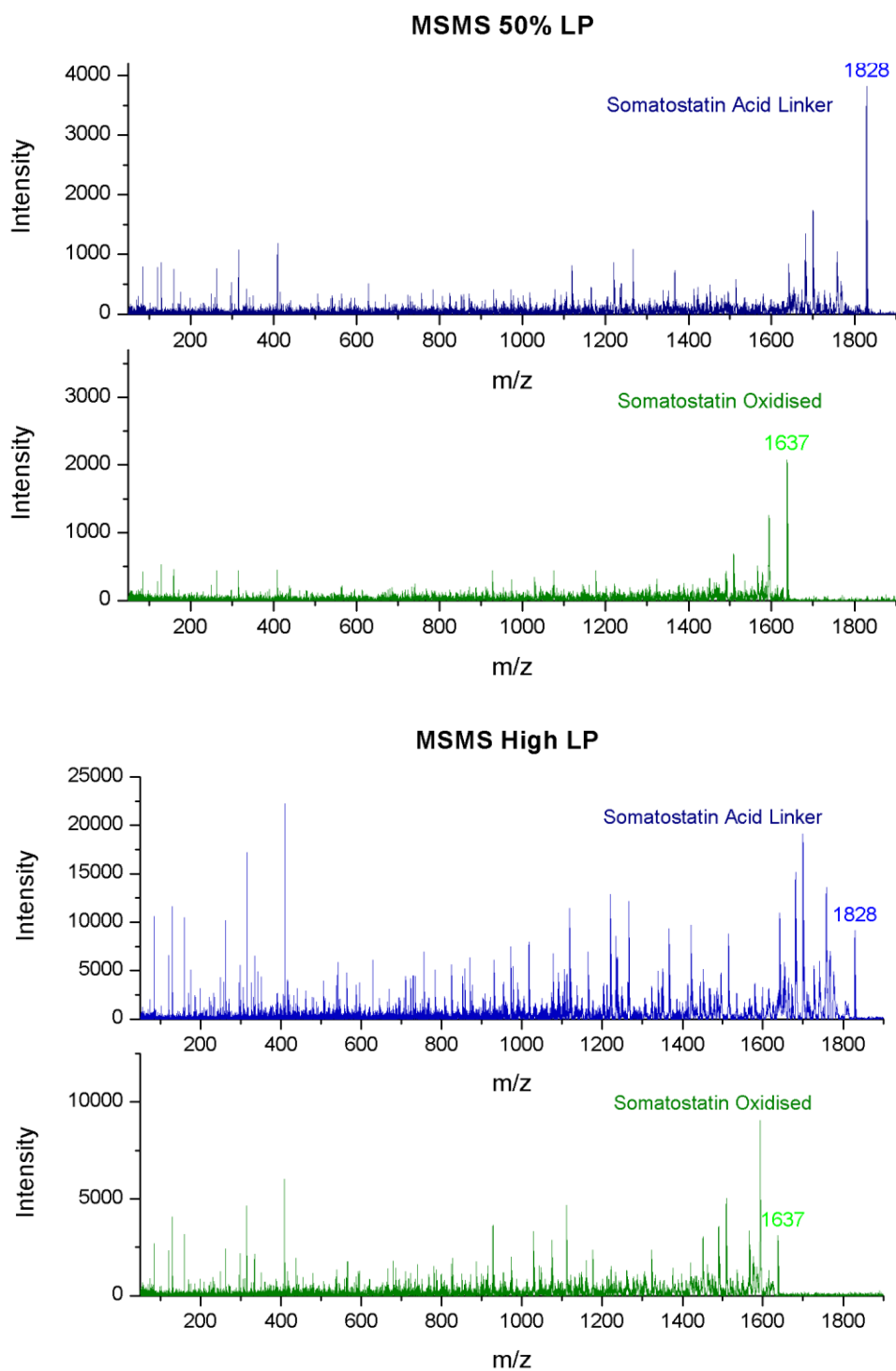


**Figure S5.** DOSY of glutathione reaction, D<sub>2</sub>O (note: some unremoved glutathione and glycerol contamination from Amicon® tube is present, circled)



**Figure S6.** Water suppressed NMR spectra of further purified PVP-DVSCysLinkerGlutathione in H<sub>2</sub>O/10%D<sub>2</sub>O; TOCSY and DOSY





**Figure S7.** MSMS on acid linker somatostatin 1828m/z and oxidised somatostatin 1637m/z at a) 50% laser power; b) high laser power.