

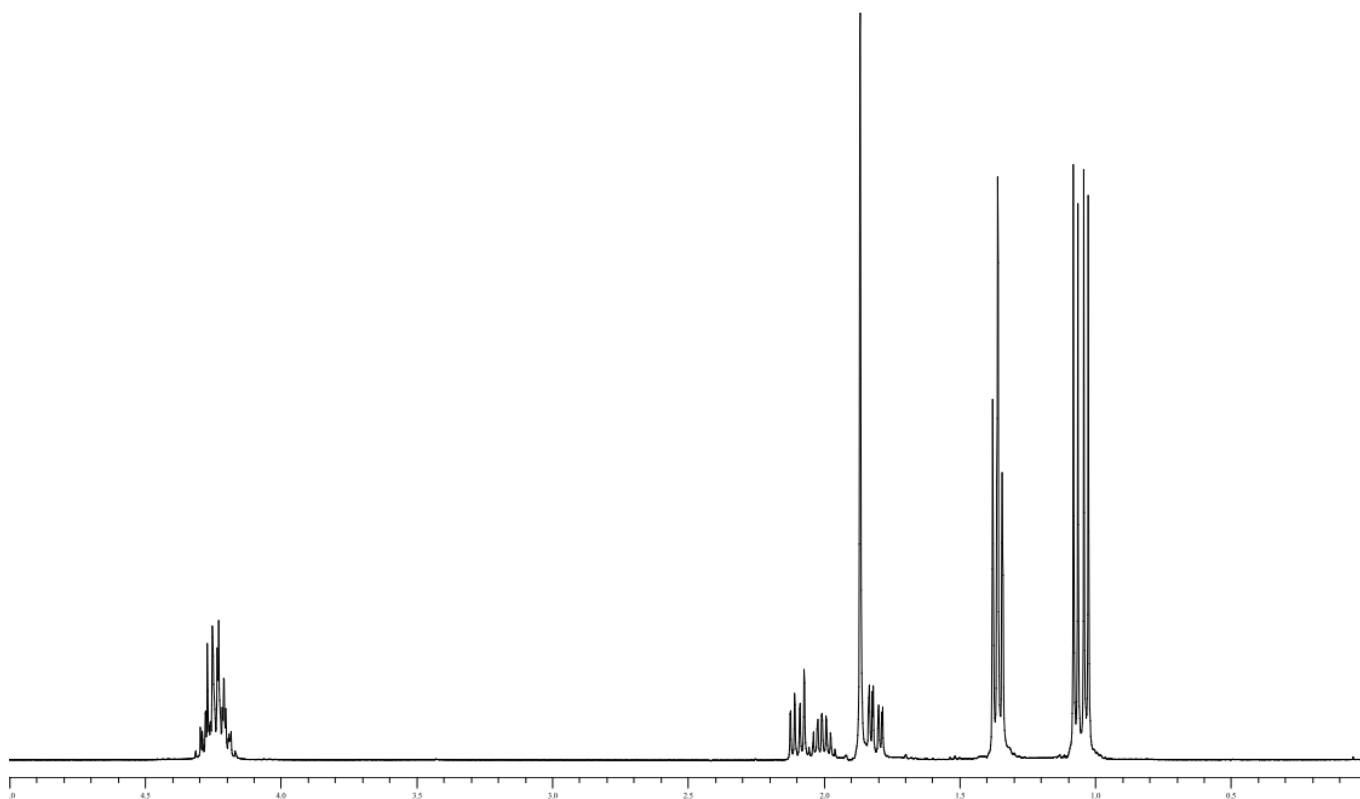
# Poly(Glycidyl Methacrylate): A Highly Versatile Polymeric Building Block for Post-Polymerization Modifications

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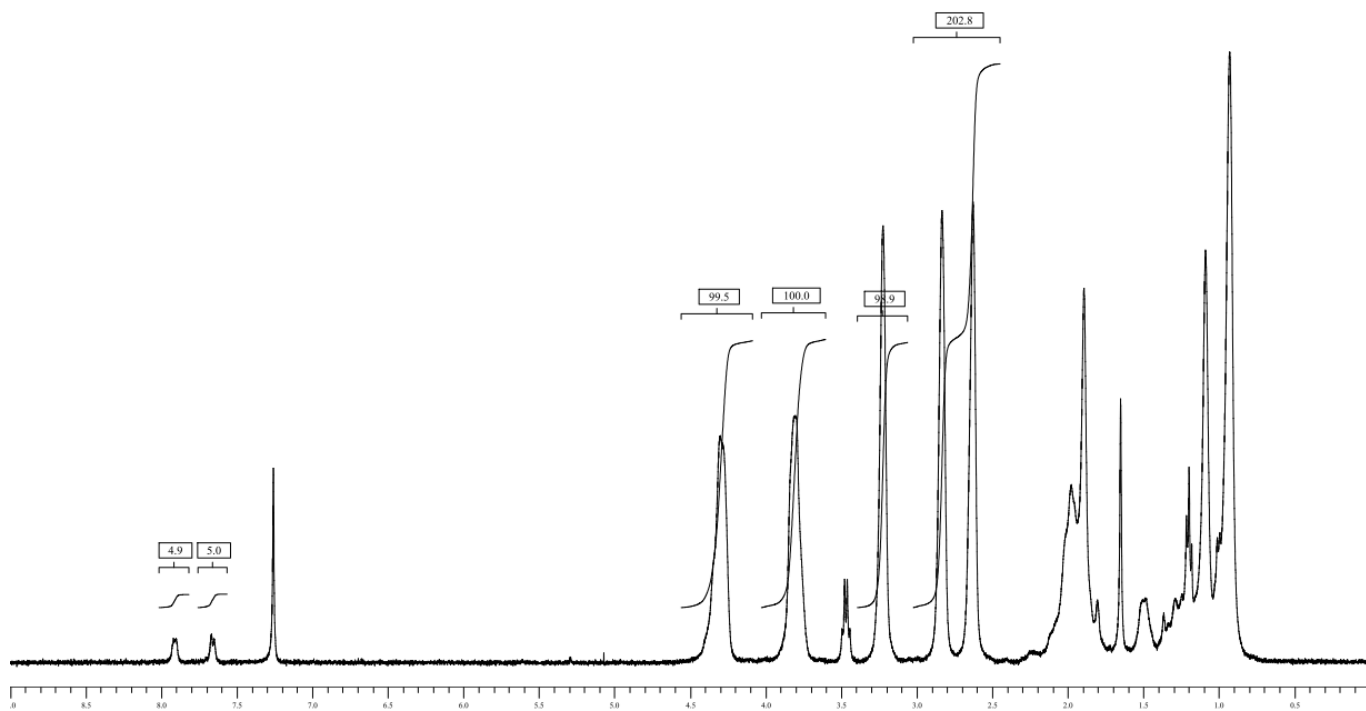
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**NMR spectra.**

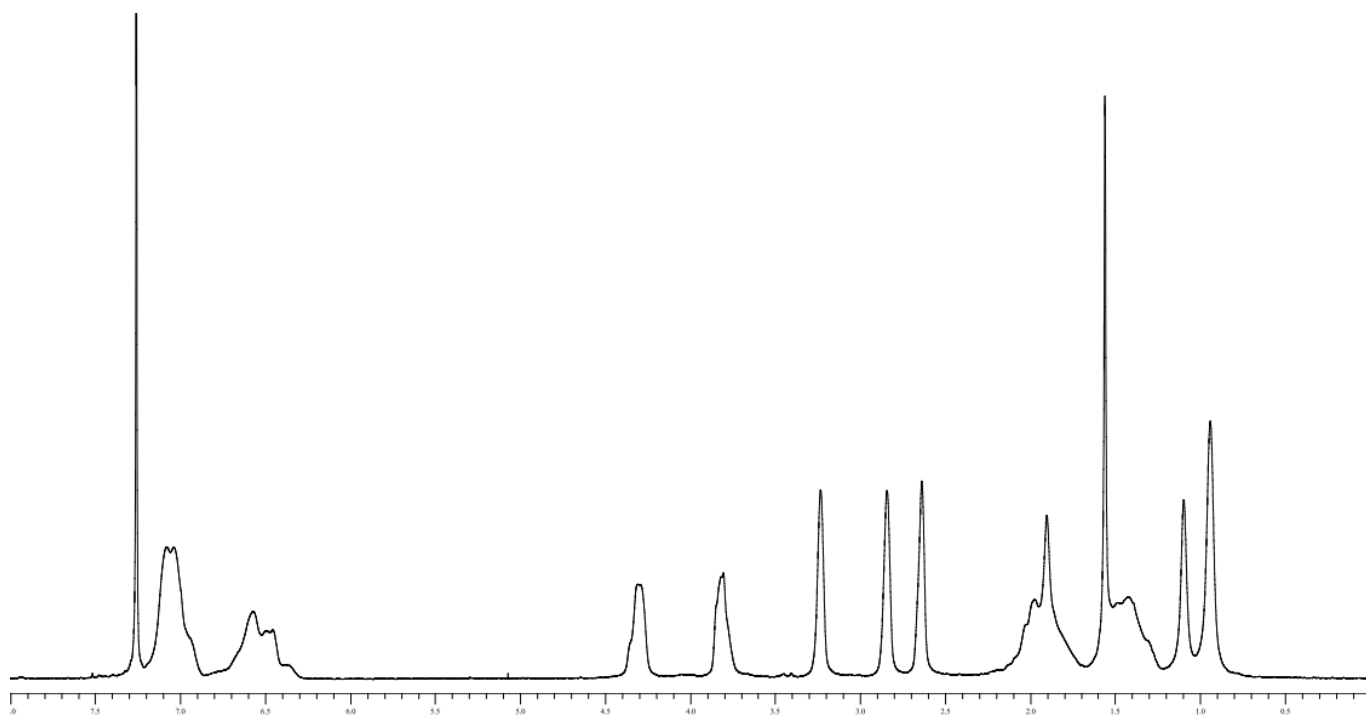


**Figure S1.** NMR spectra of 2-cyano-4-methylpent-2-yl diethoxyphosphoryldithioformate in  $\text{CDCl}_3$ .

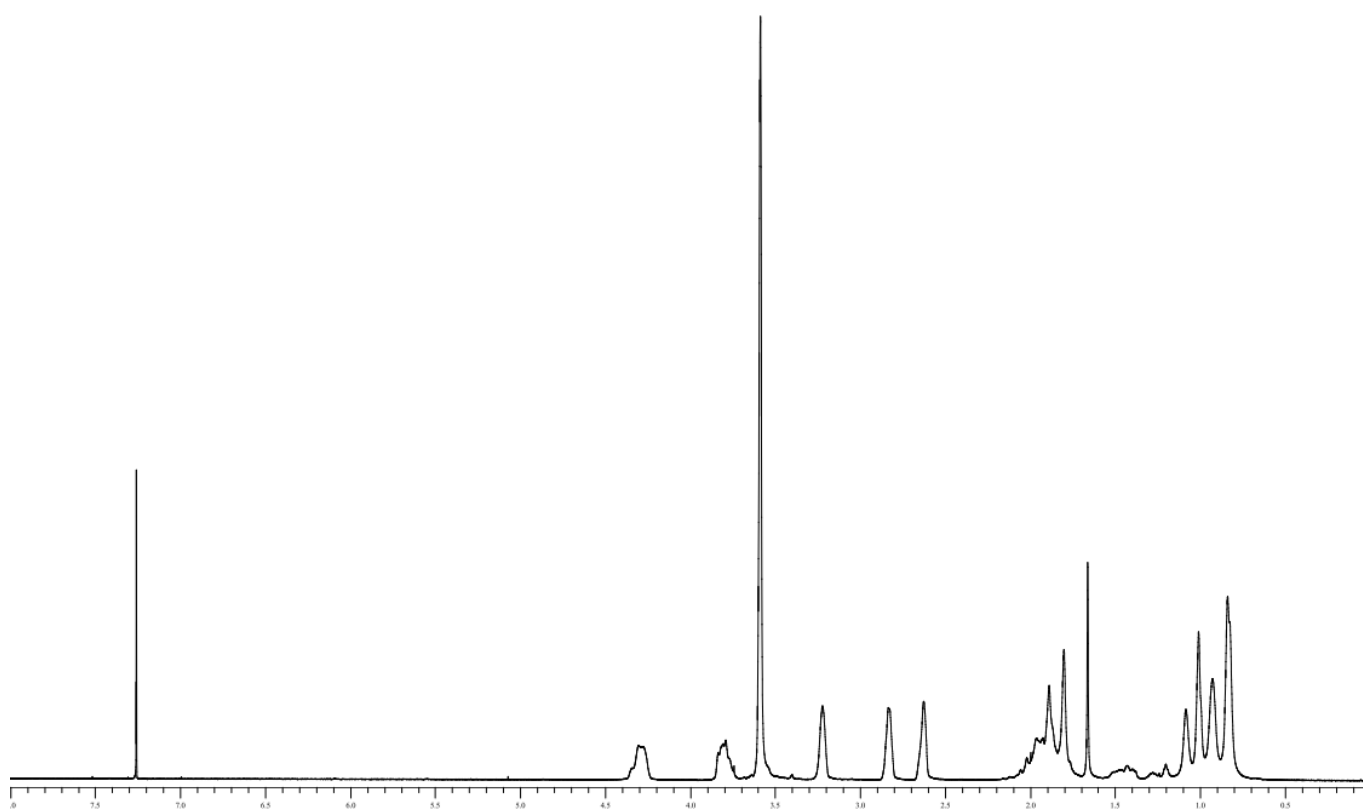




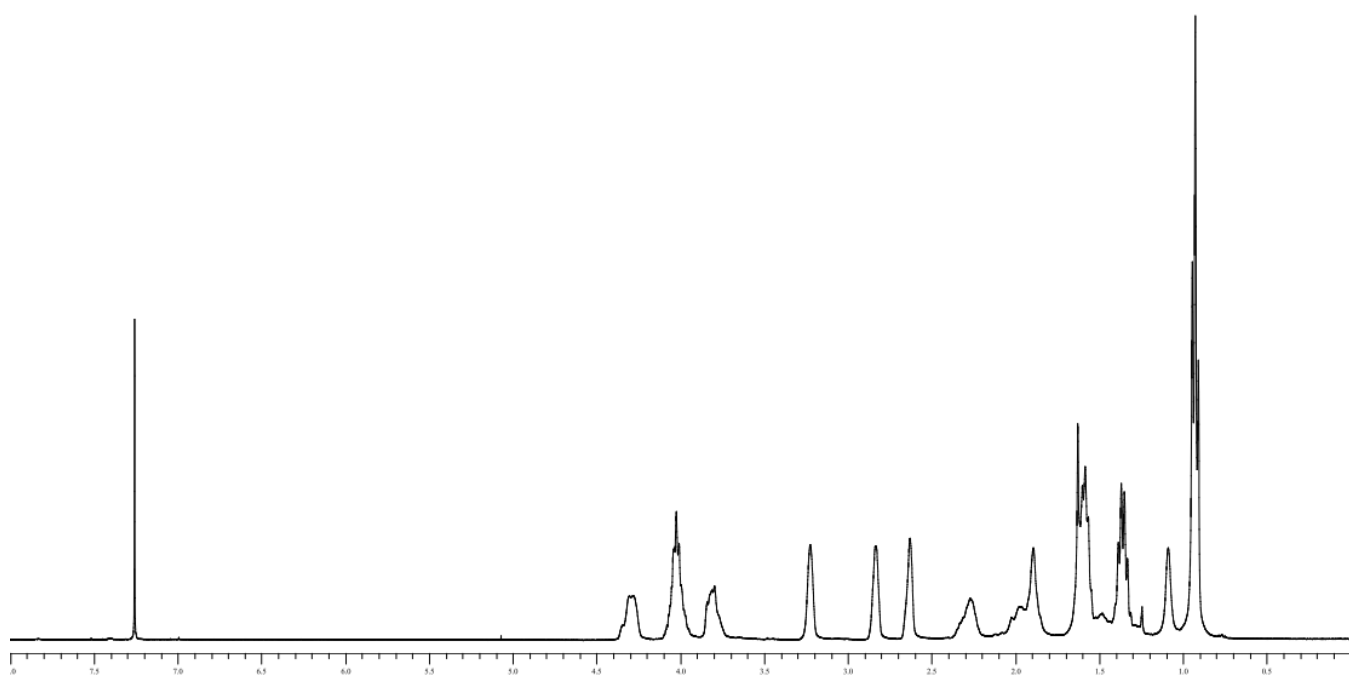
**Figure S2.** NMR spectra in CDCl<sub>3</sub> of PGMA synthesized with the RAFT agent 2-cyano-4-methylpent-2-yl 4-cyanodithiobenzoate **1b** (after 6.5 h at 70°C).



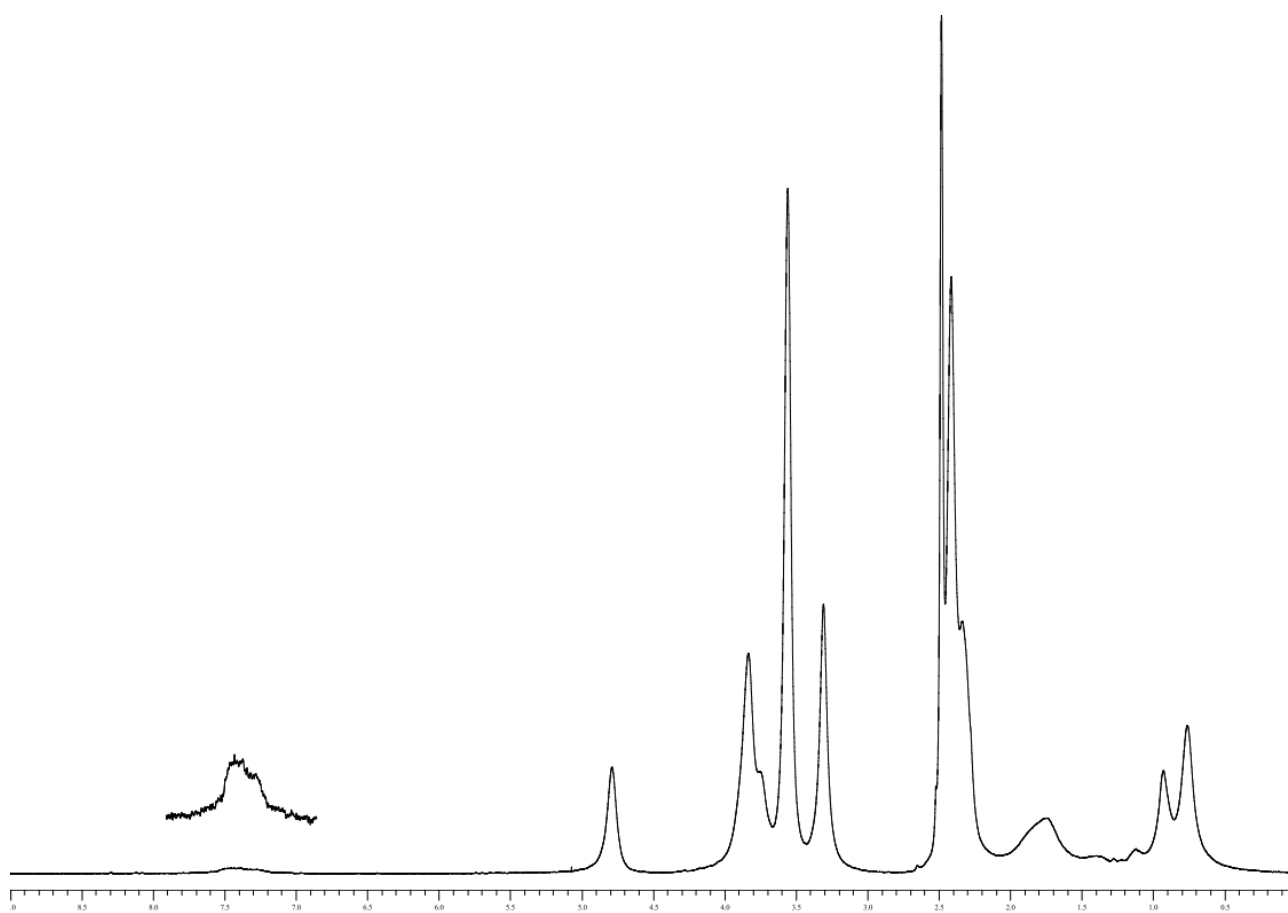
**Figure S3.** <sup>1</sup>H NMR of PGMA-PS in CDCl<sub>3</sub>.



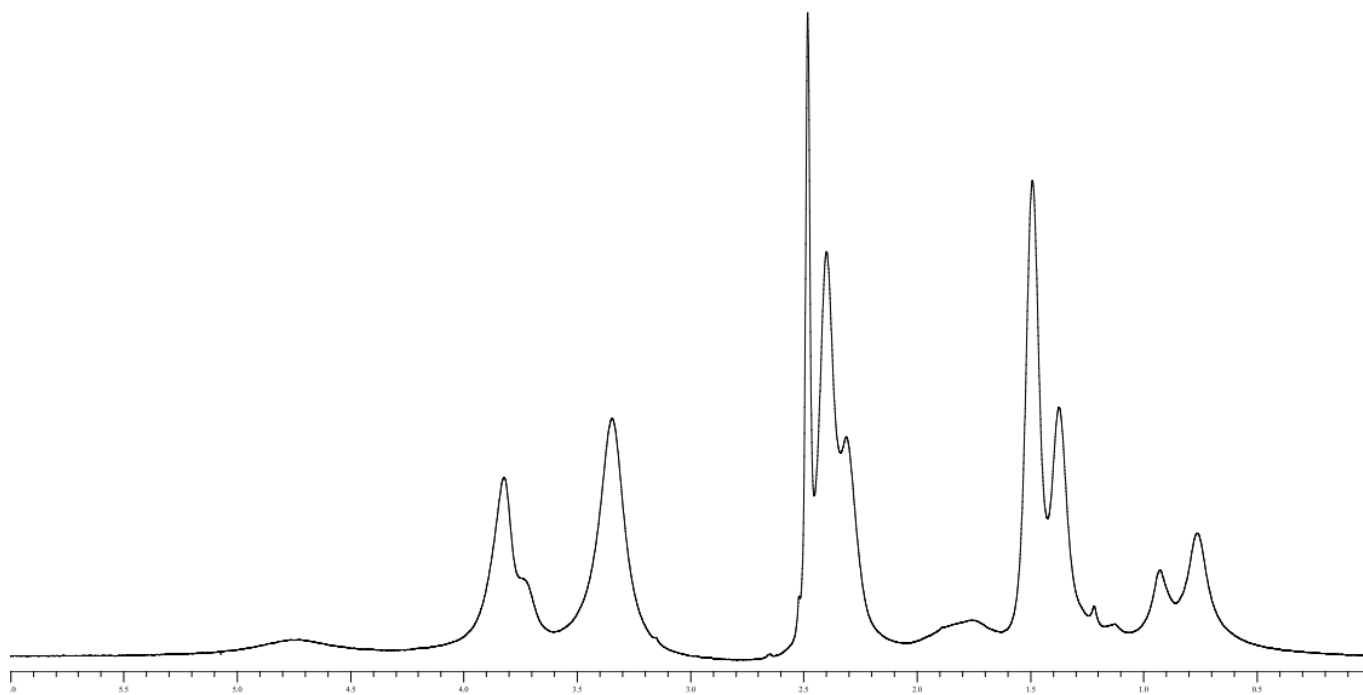
**Figure S4.**  $^1\text{H}$  NMR of PGMA-PMMA in  $\text{CDCl}_3$ .



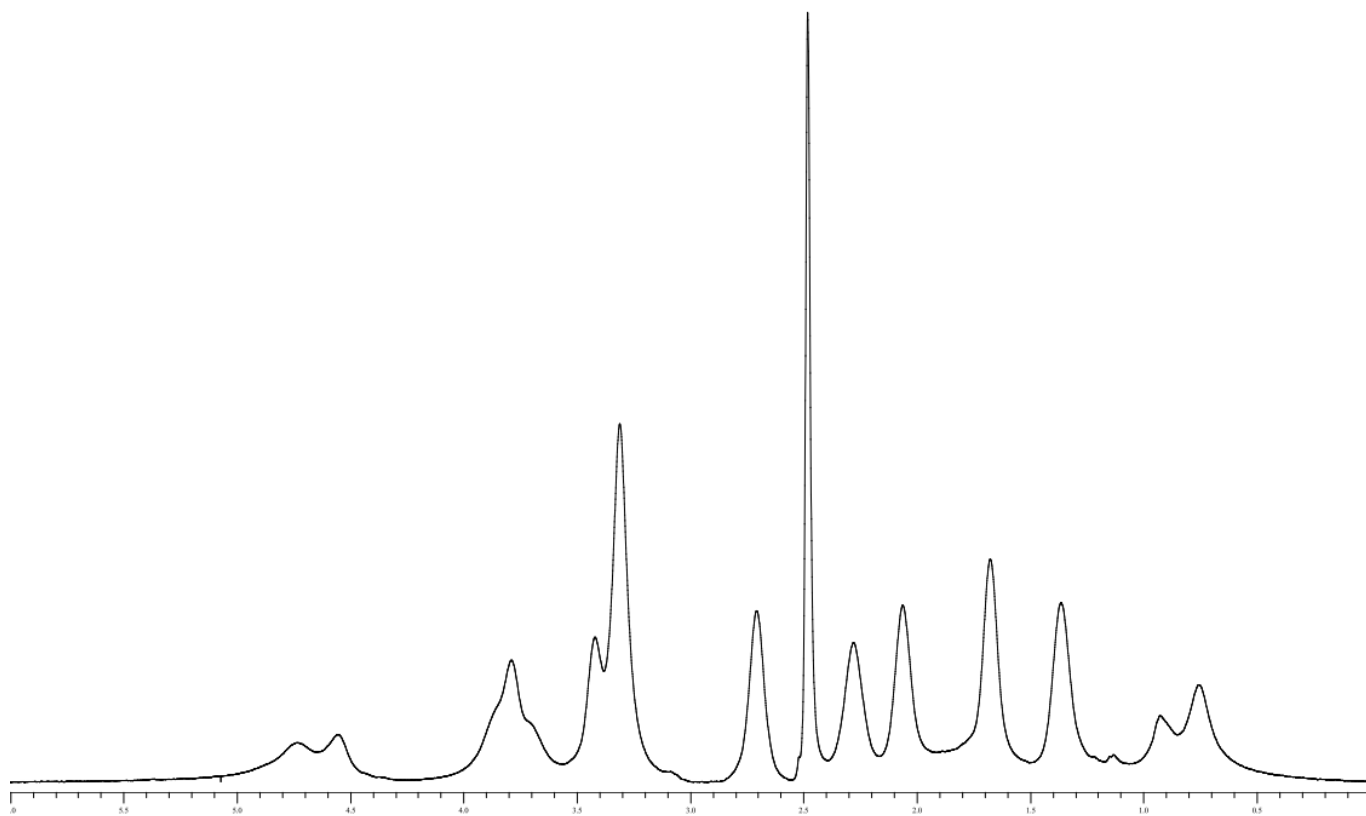
**Figure S5.**  $^1\text{H}$  NMR of PGMA-PBA in  $\text{CDCl}_3$ .



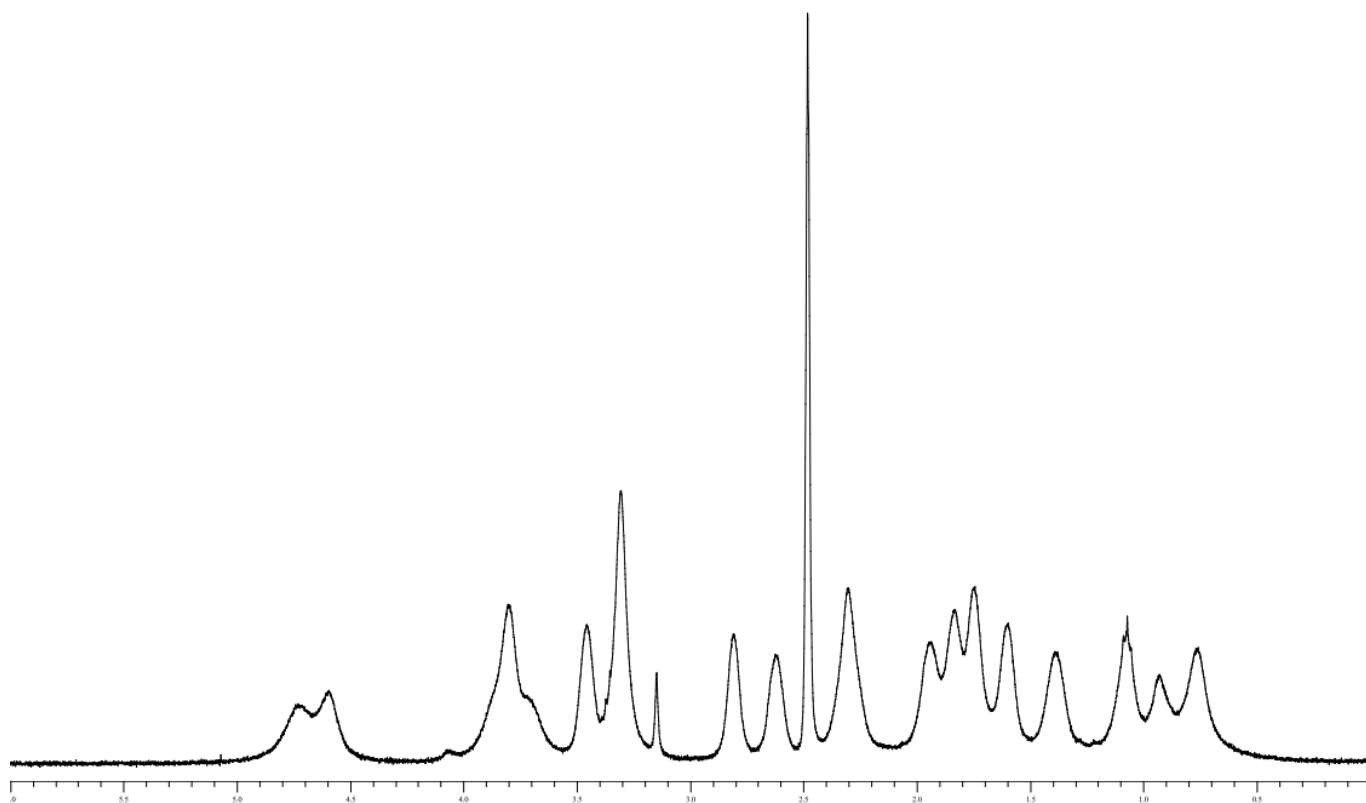
**Figure S6.** <sup>1</sup>H NMR of PGMA treated with morfoline and *N*-phenyl maleimide in DMSO-*d*<sub>6</sub>.



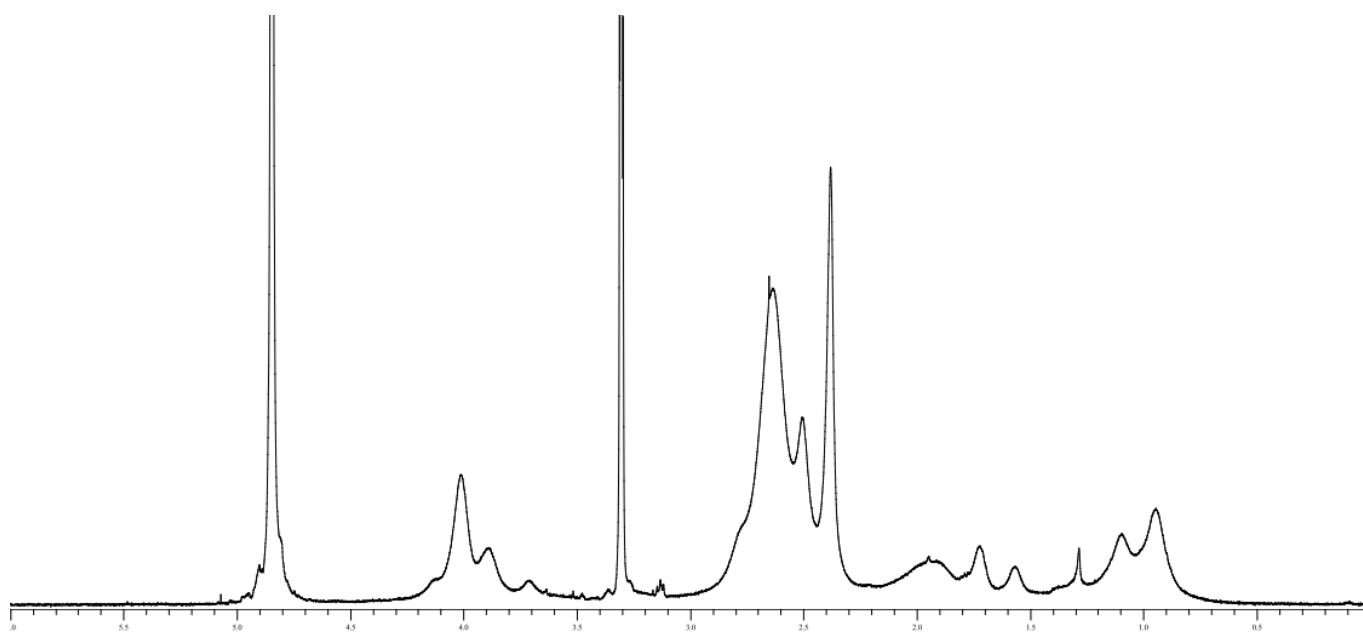
**Figure S7.** <sup>1</sup>H NMR of PGMA treated with piperidine in DMSO-*d*<sub>6</sub>.



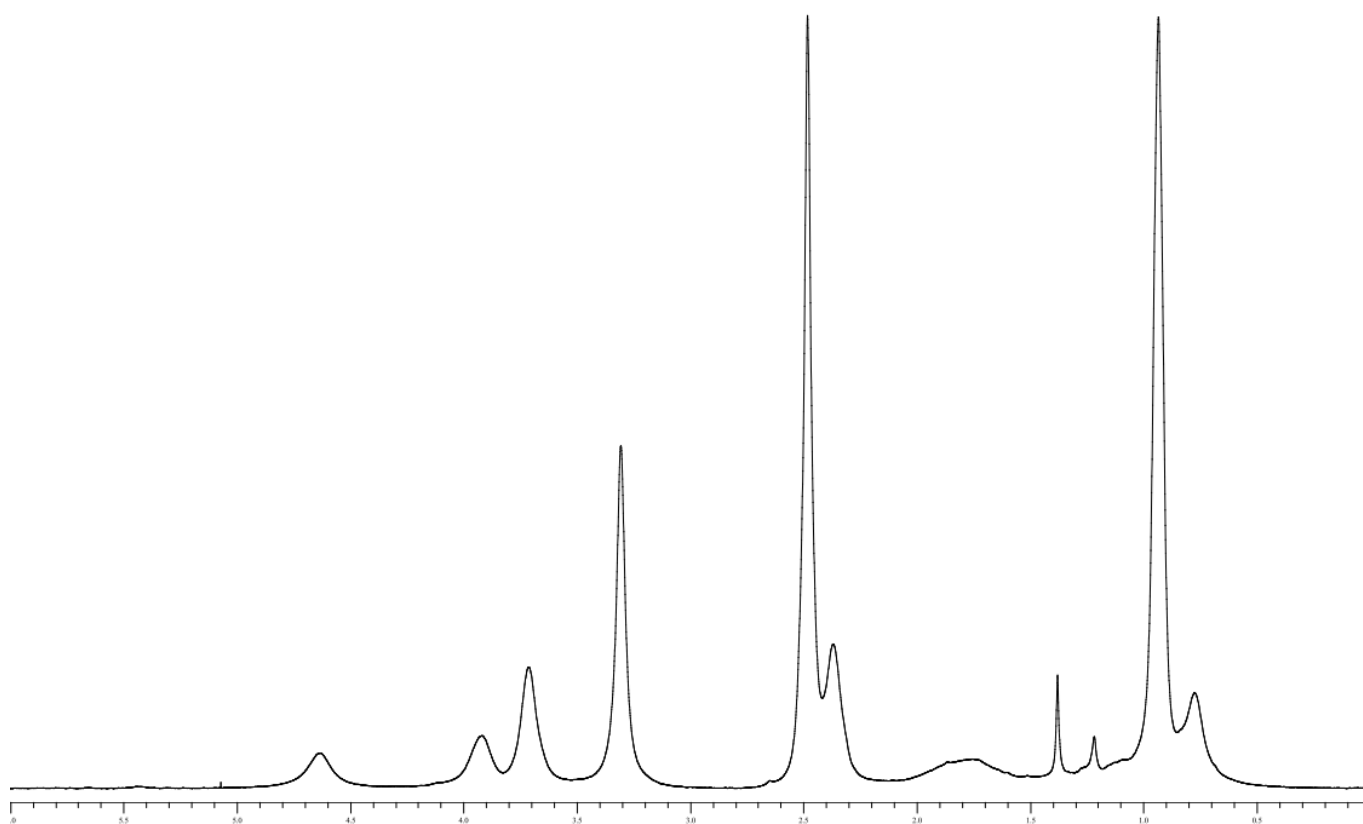
**Figure S8.** <sup>1</sup>H NMR of PGMA treated with 4-hydroxypiperidine in DMSO-*d*<sub>6</sub>.



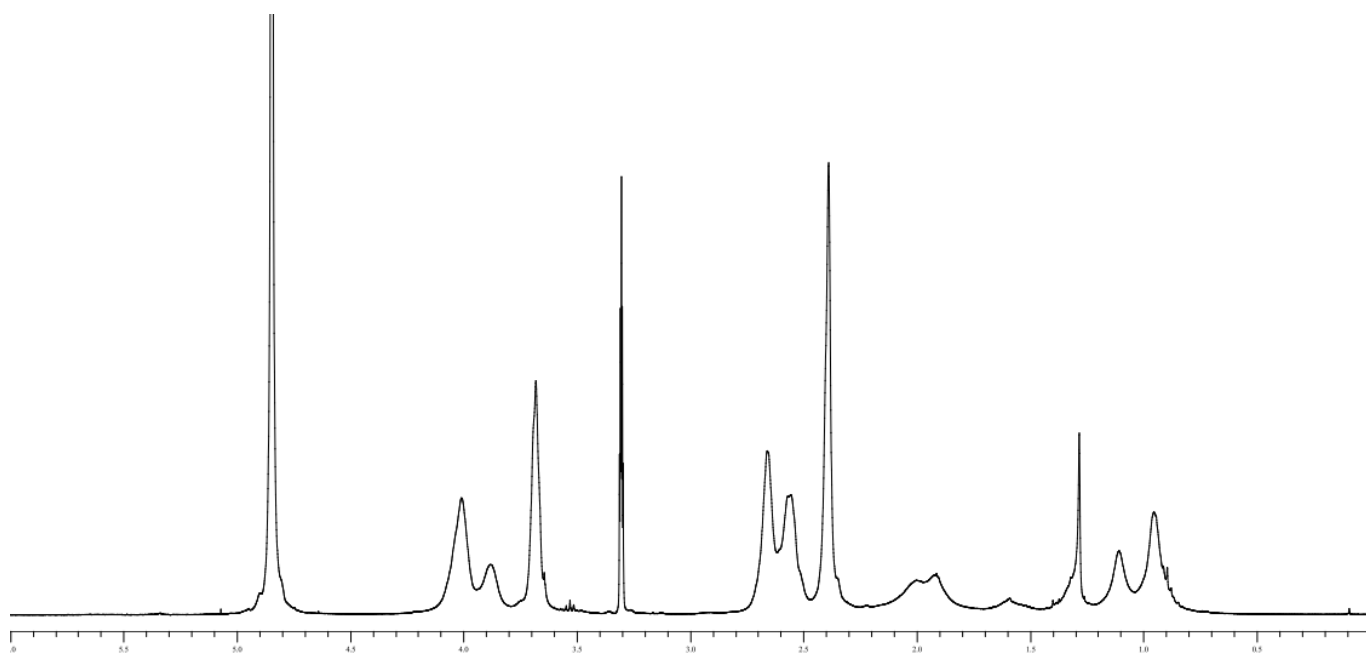
**Figure S9.** <sup>1</sup>H NMR of PGMA treated with 3-hydroxypiperidine in DMSO-*d*<sub>6</sub>.



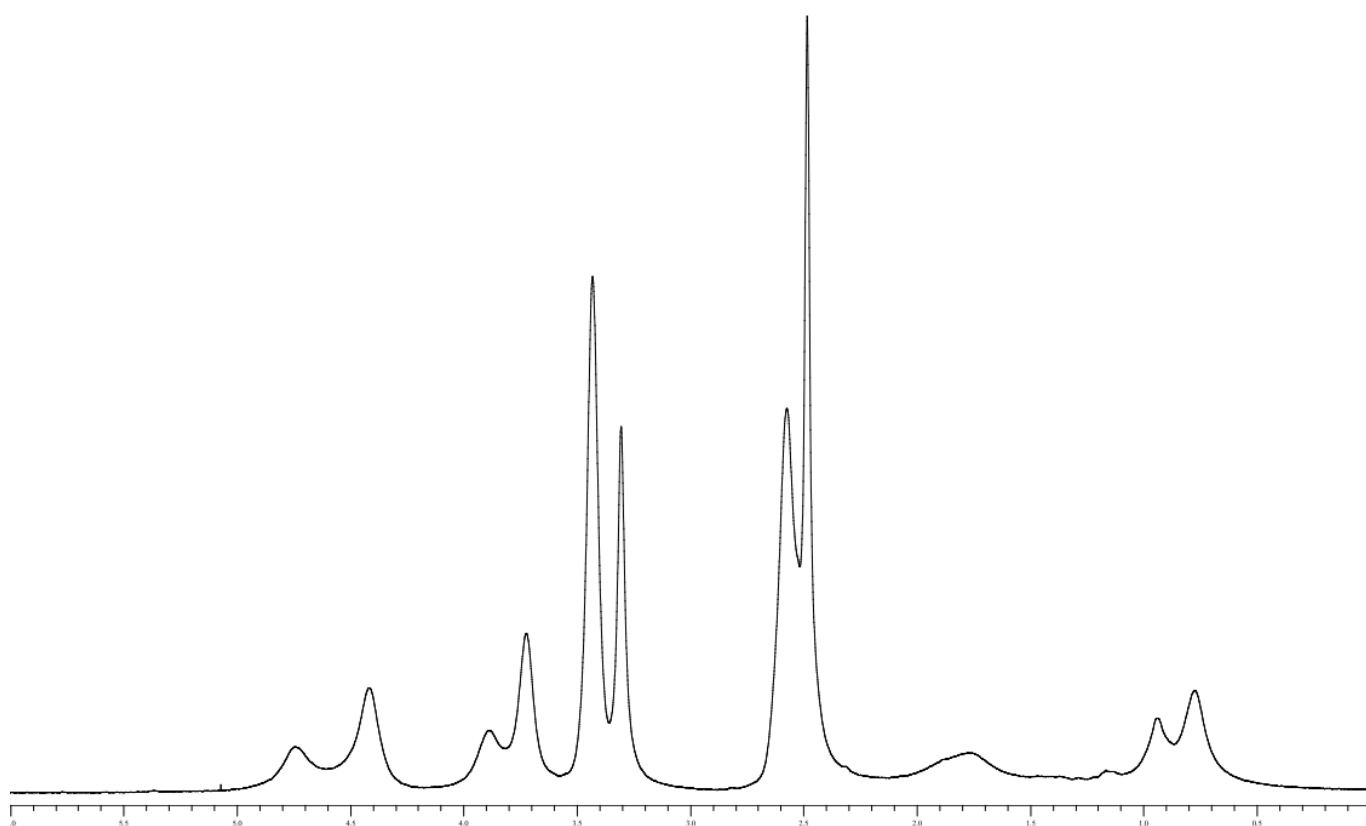
**Figure S10.** <sup>1</sup>H NMR of PGMA treated with *N*-methyl piperazine in methanol-*d*<sub>4</sub>.



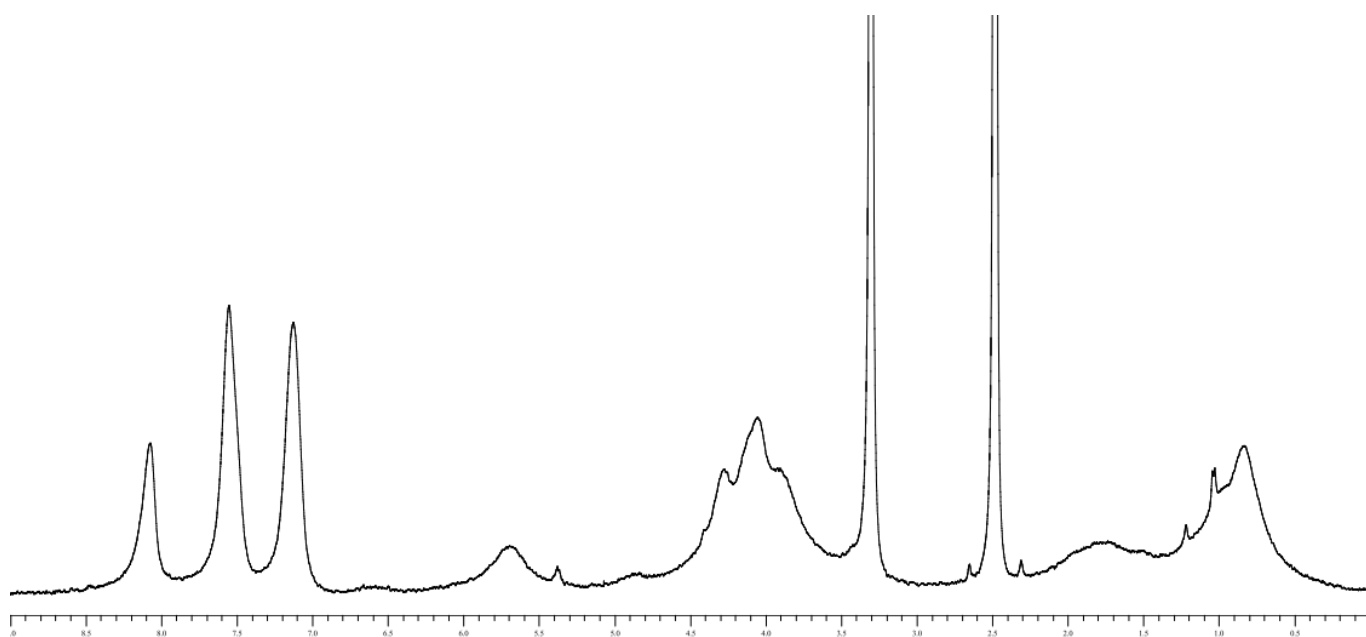
**Figure S11.** <sup>1</sup>H NMR of PGMA treated with diethylamine in DMSO-*d*<sub>6</sub>.



**Figure S12.** <sup>1</sup>H NMR of PGMA treated with methyl ethanolamine in methanol-*d*<sub>4</sub>.

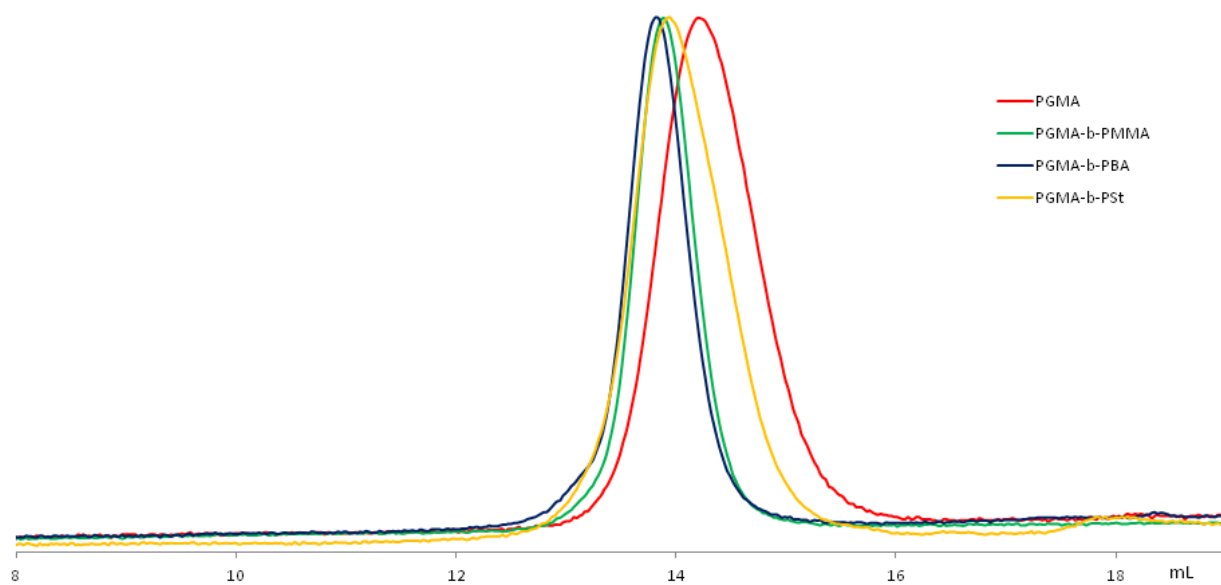


**Figure S13.** <sup>1</sup>H NMR of PGMA treated with diethanolamine in DMSO-*d*<sub>6</sub>.



**Figure S14.** <sup>1</sup>H NMR of PGMA treated with benzimidazole in DMSO-*d*<sub>6</sub>.

**Block copolymers GPC analysis.**



**Figure S15.** GPC traces of PGMA macroRAFT (red line), PGMA-*b*-PMMA (green line), PGMA-*b*-PBA (blue line), PGMA-*b*-PSt (yellow line).



FT/IR spectra.

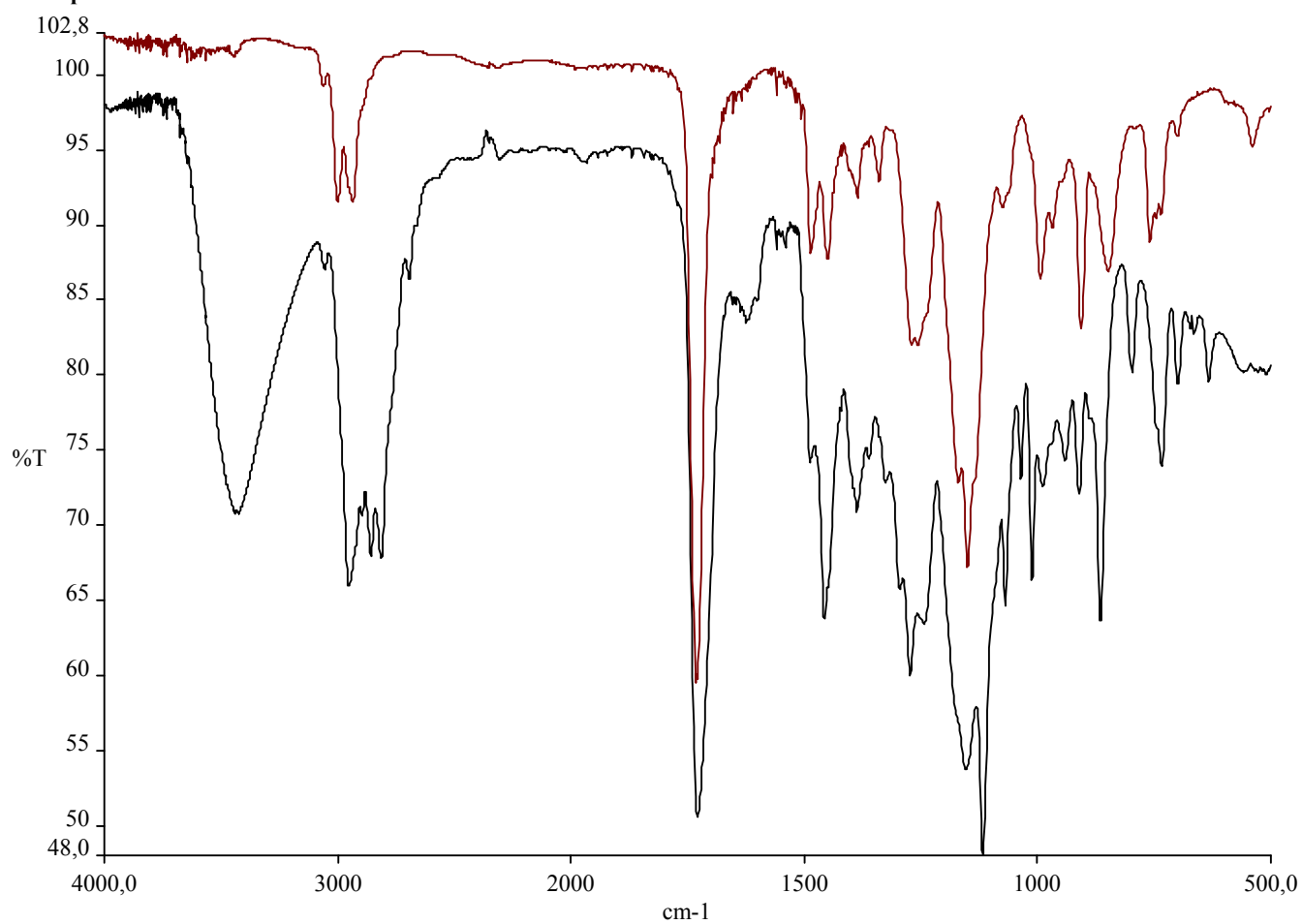
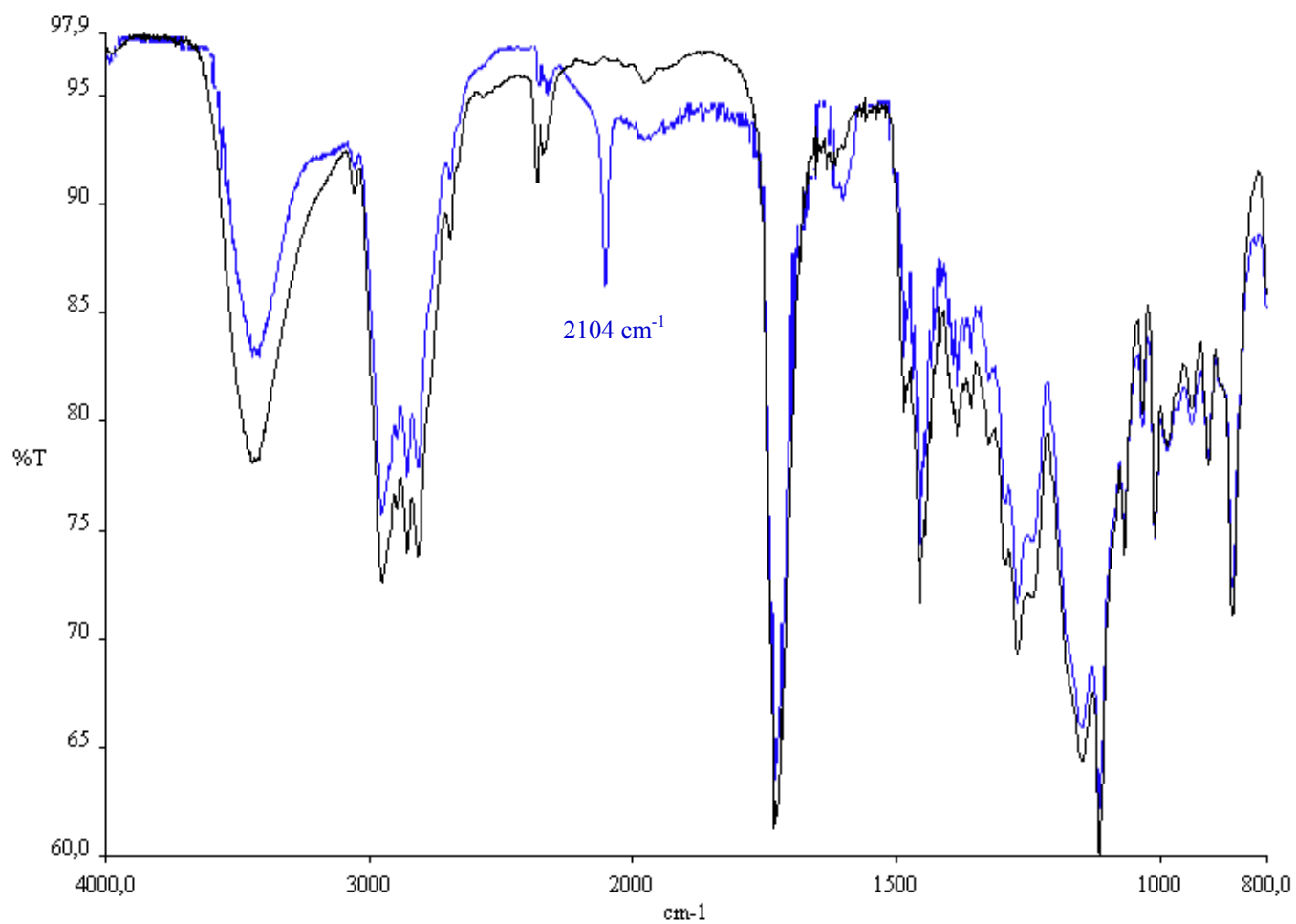


Figure S16. FT-IR spectra of PGMA (red line) and of PHMPMA (black line).



**Figure S17.** FT-IR spectra of PHMPMA (black line) and of PHMPMA-*co*-PAMPMA (blue line).