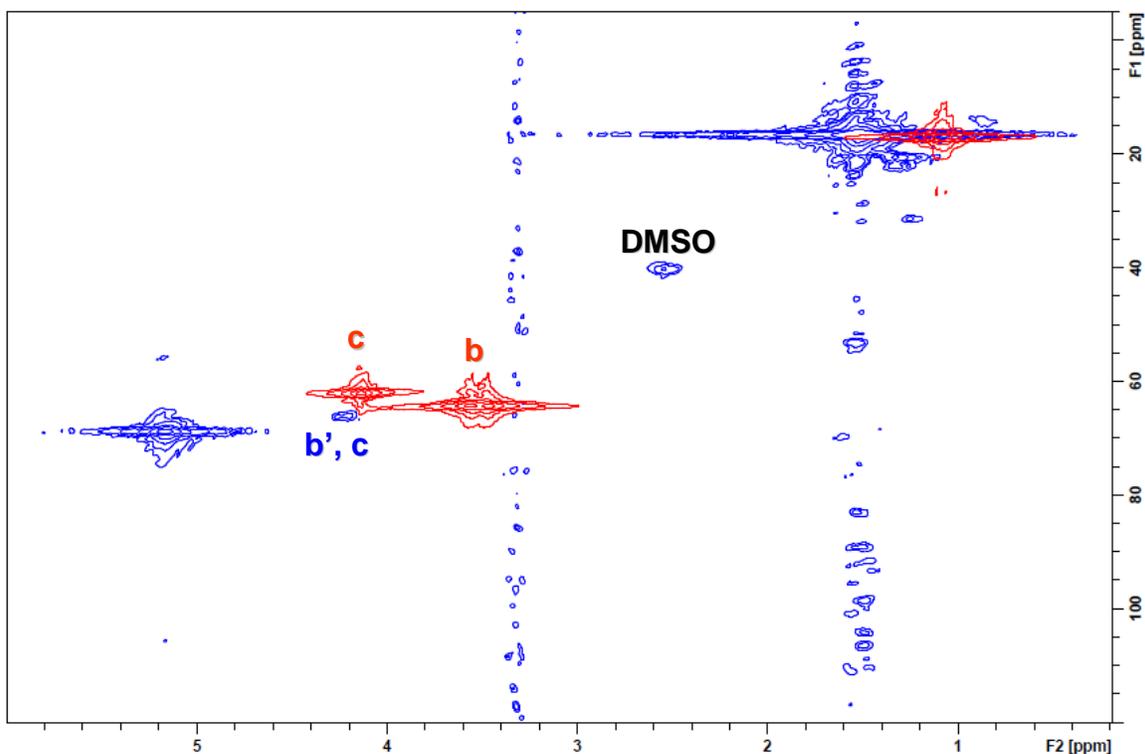


# Facile Routes to Star Polymers via an Organocatalytic Approach

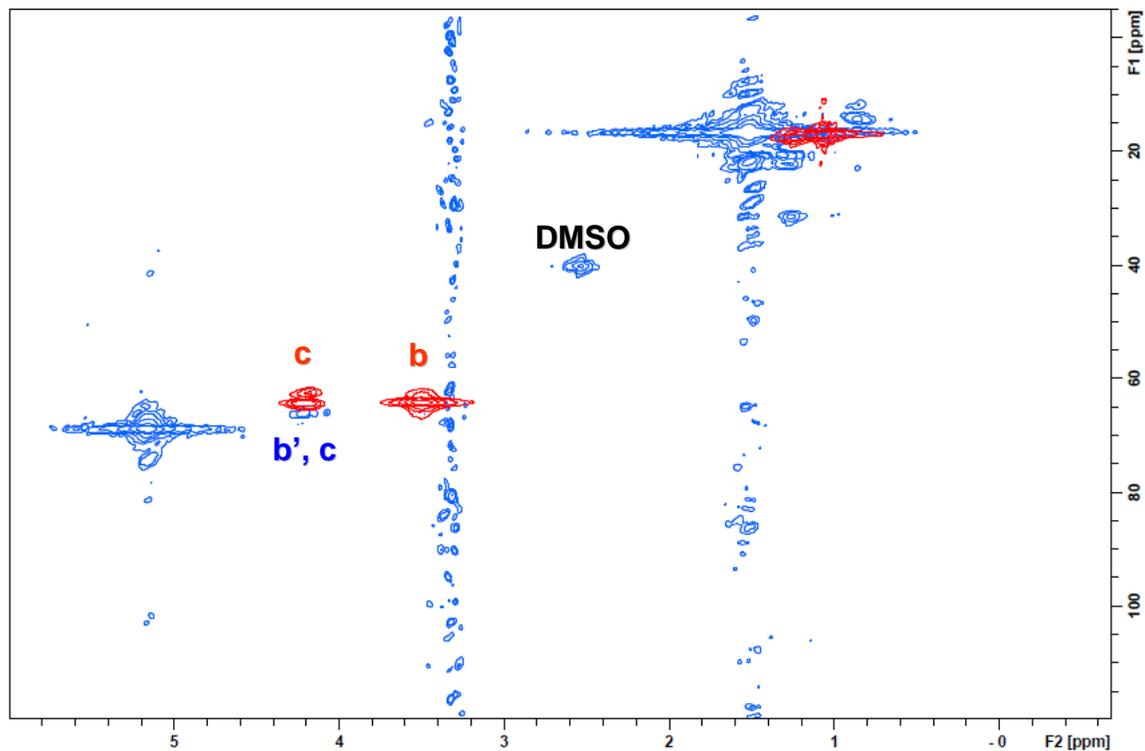
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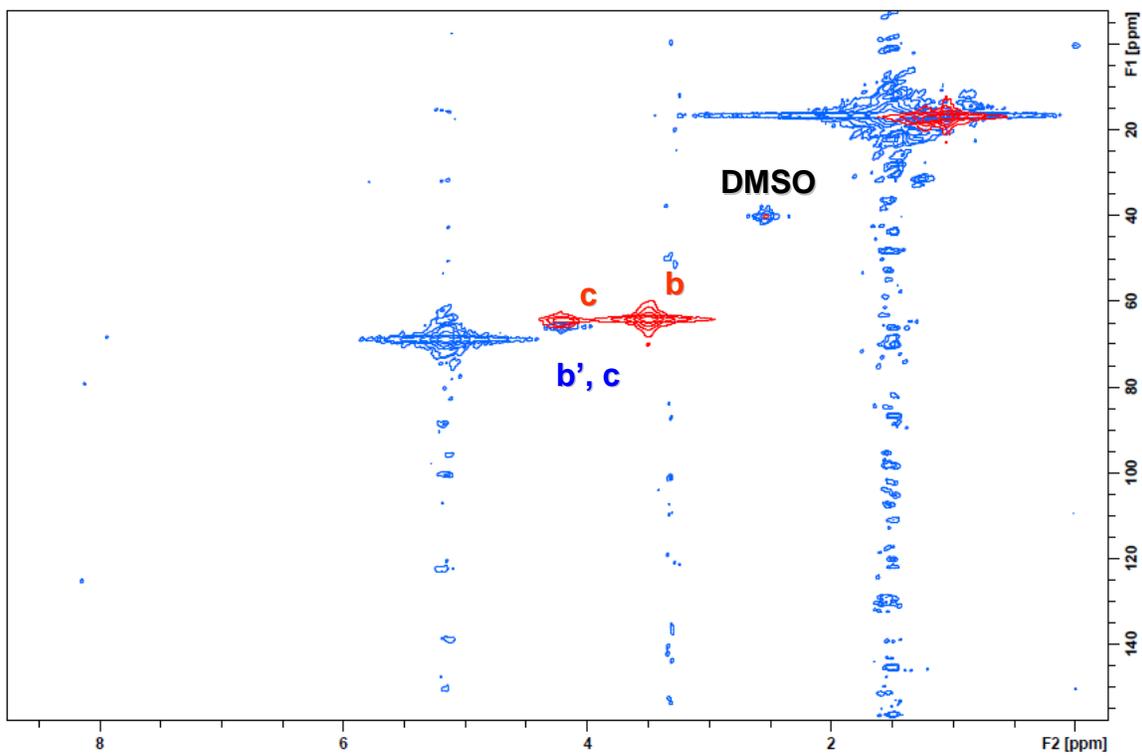
## Supplementary Information



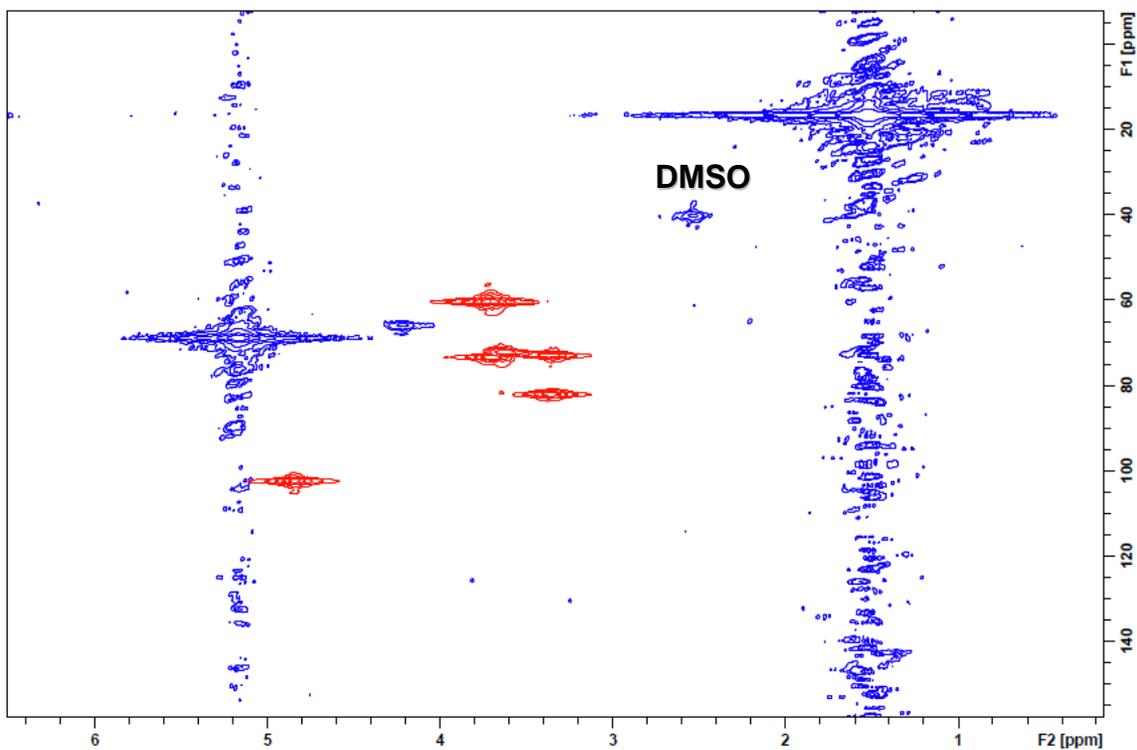
**Figure 1.** 2D NMR of bis-MPA G-1 dendrimer (red) and bis-MPA G-1 dendrimer with five (L)-lactide repeat units (blue). Both NMRs were taken in a 50:50 by weight mixture of  $d_6$  DMSO:CDCl<sub>3</sub>.



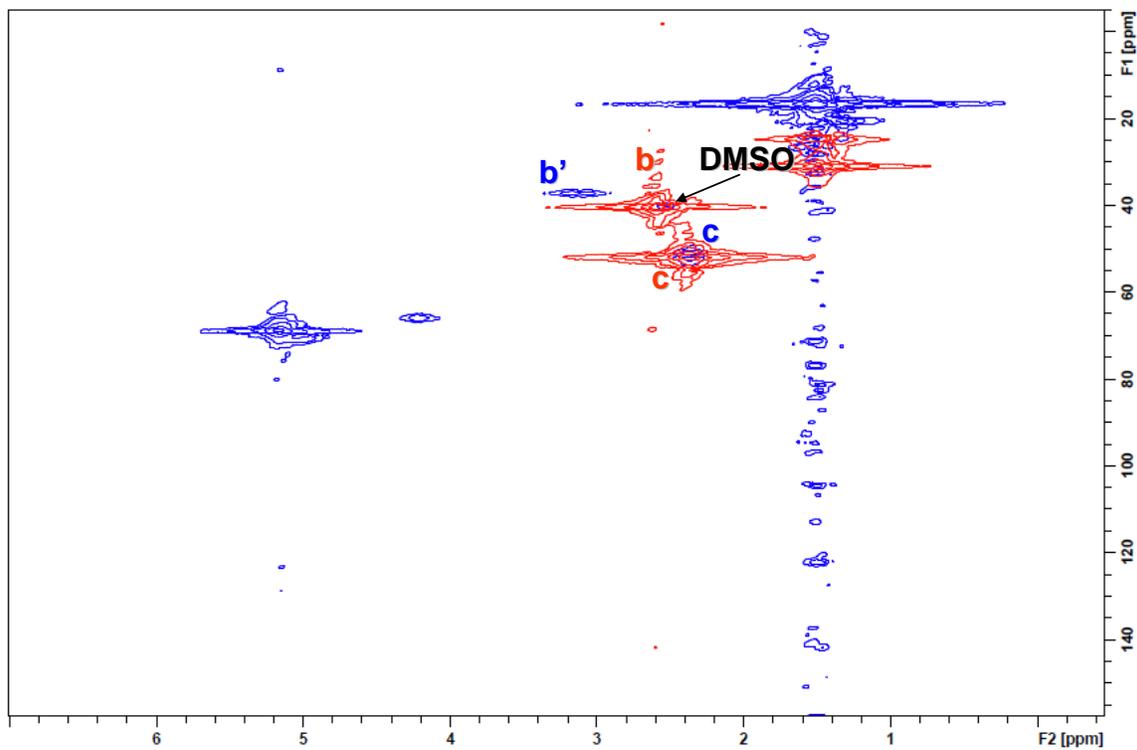
**Figure 2.** 2D NMR of bis-MPA G-2 dendrimer (red) and bis-MPA G-2 dendrimer with five (L)-lactide repeat units (blue). Both NMRs were taken in a 50:50 by weight mixture of  $d_6$  DMSO:CDCl<sub>3</sub>.



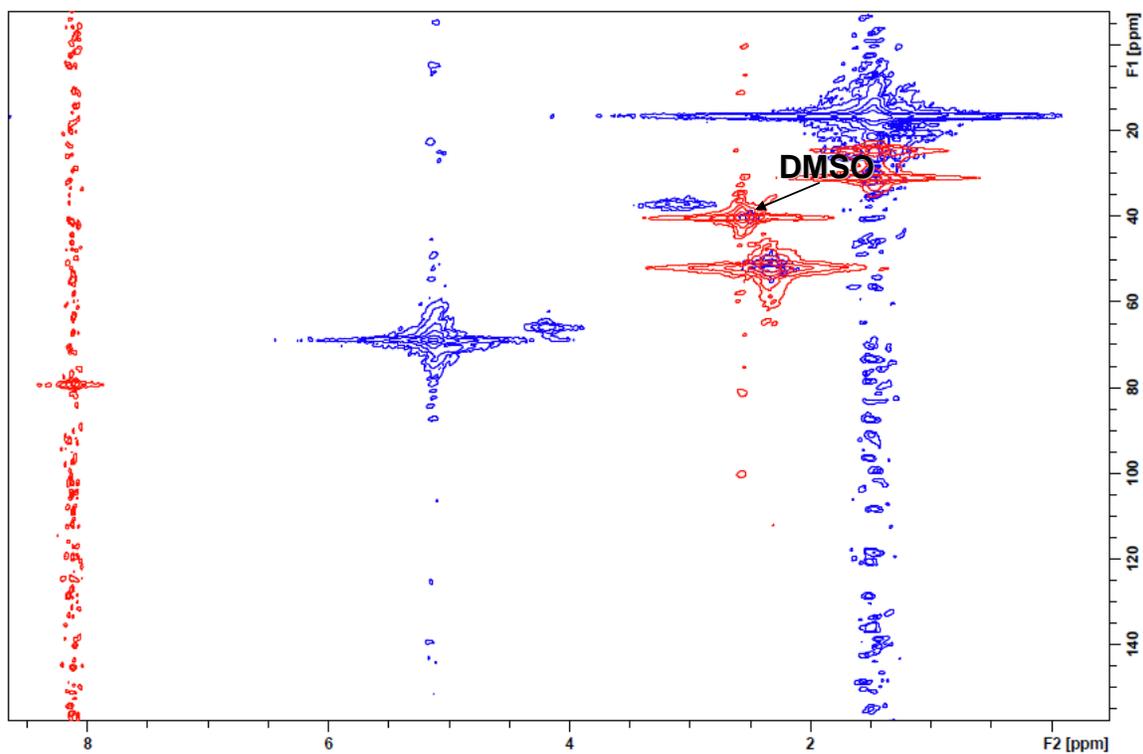
**Figure 3.** 2D NMR of bis-MPA G-4 dendrimer (red) and bis-MPA G-4 dendrimer with five (L)-lactide repeat units (blue). Both NMRs were taken in a 50:50 by weight mixture of  $d_6$  DMSO:CDCl<sub>3</sub>.



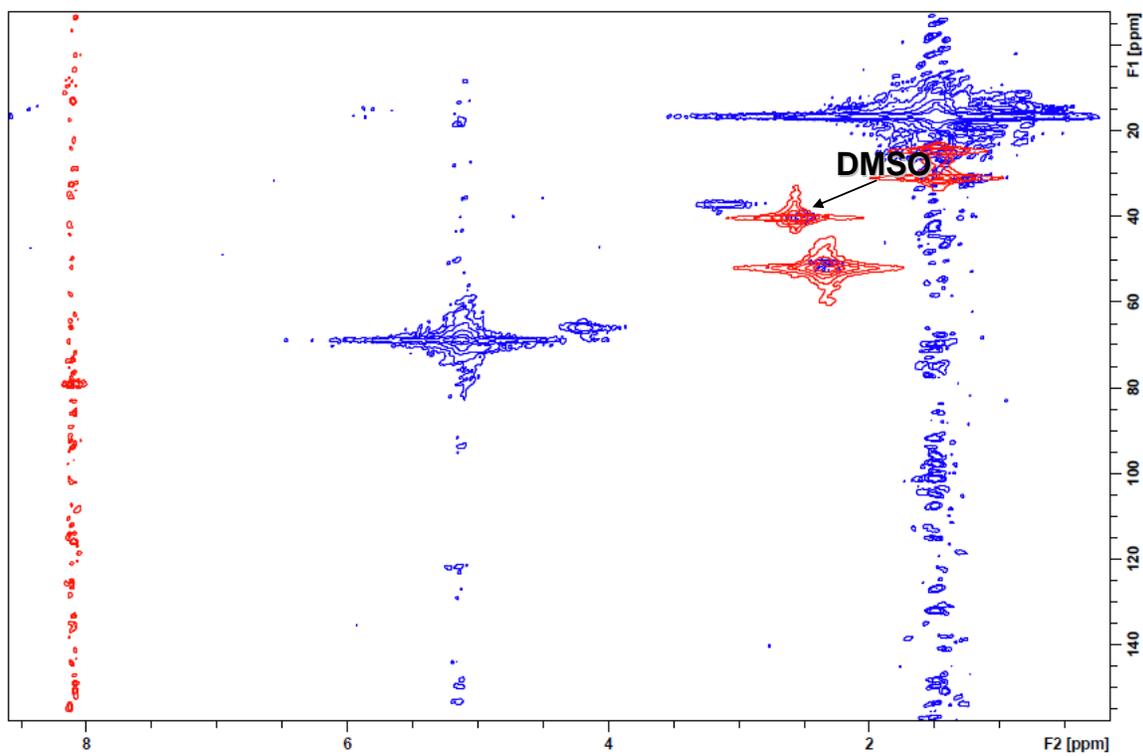
**Figure 4.** 2D NMR of  $\beta$ -cyclodextrin (red) and  $\beta$ -cyclodextrin with five (L)-lactide repeat units (blue). Both NMRs were taken in a 50:50 by weight mixture of  $d_6$  DMSO:CDCl<sub>3</sub>.



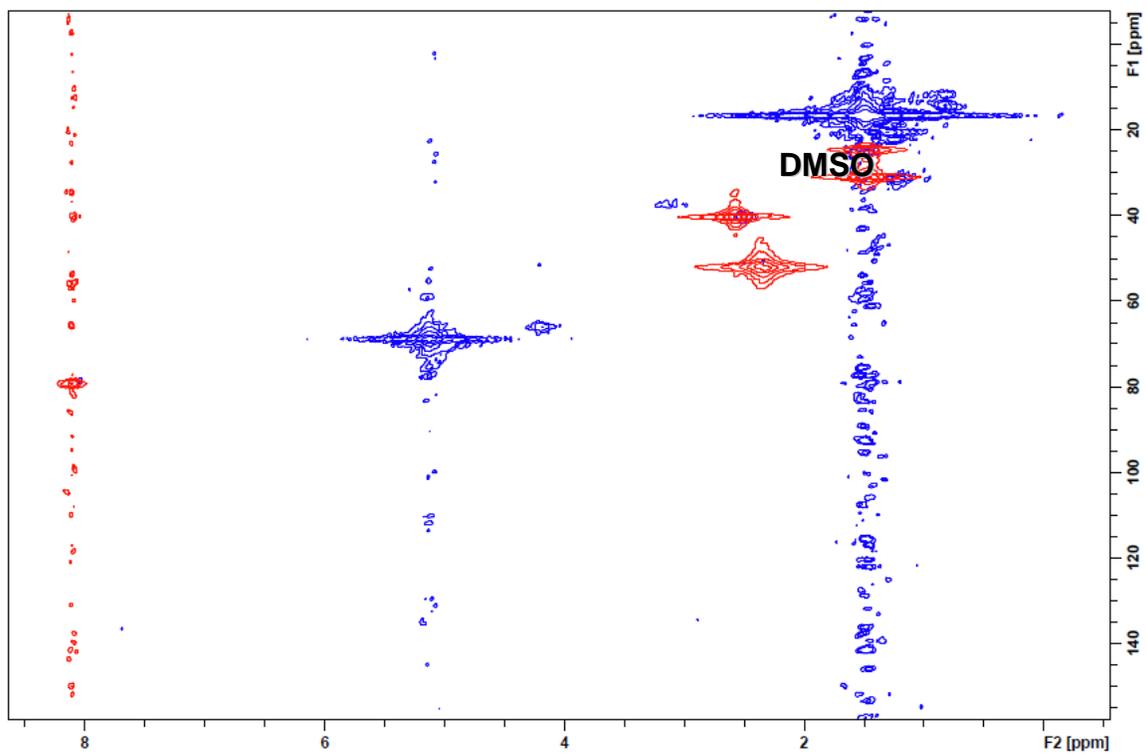
**Figure 5.** 2D NMR of PPI G-1 dendrimer (red) and PPI G-1 dendrimer with five (L)-lactide repeat units (blue). Both NMRs were taken in a 50:50 by weight mixture of  $d_6$  DMSO:CDCl<sub>3</sub>.



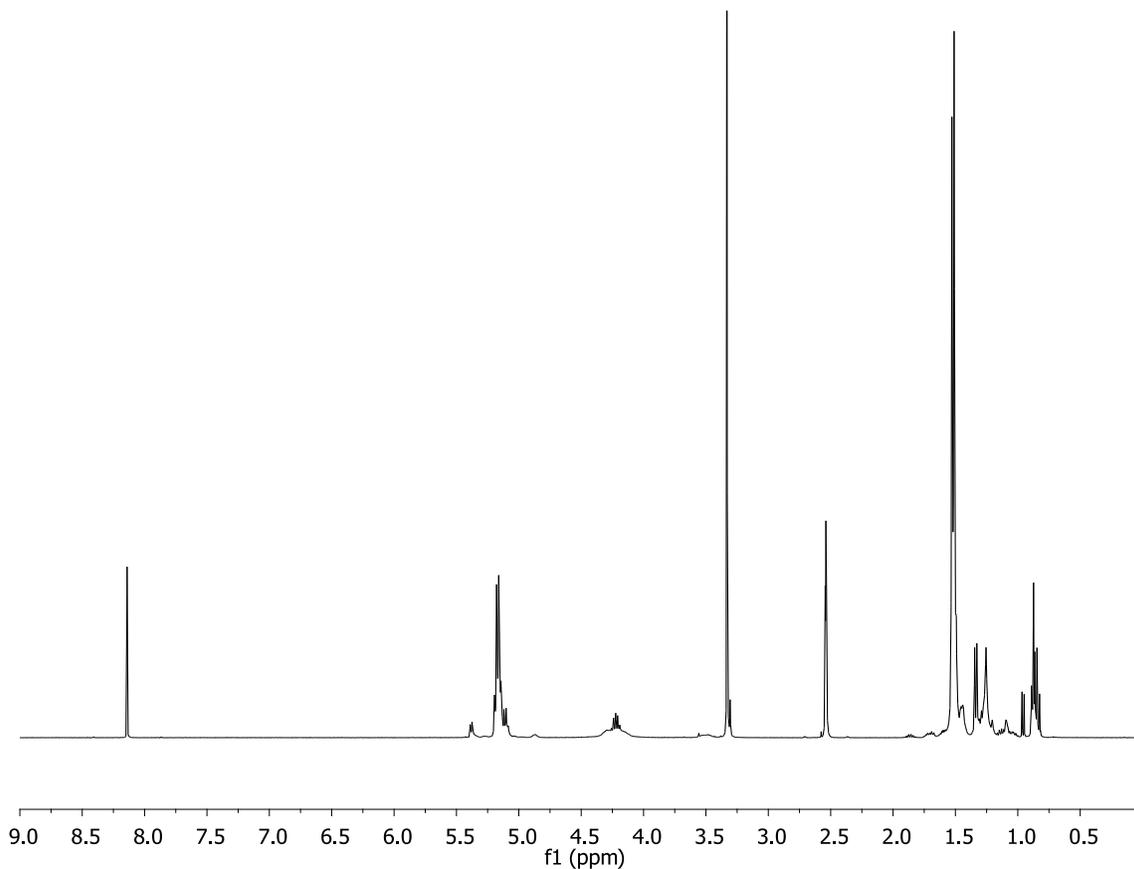
**Figure 6.** 2D NMR of PPI G-2 dendrimer (red) and PPI G-2 dendrimer with five (L)-lactide repeat units (blue). Both NMRs were taken in a 50:50 by weight mixture of  $d_6$  DMSO:CDCl<sub>3</sub>.



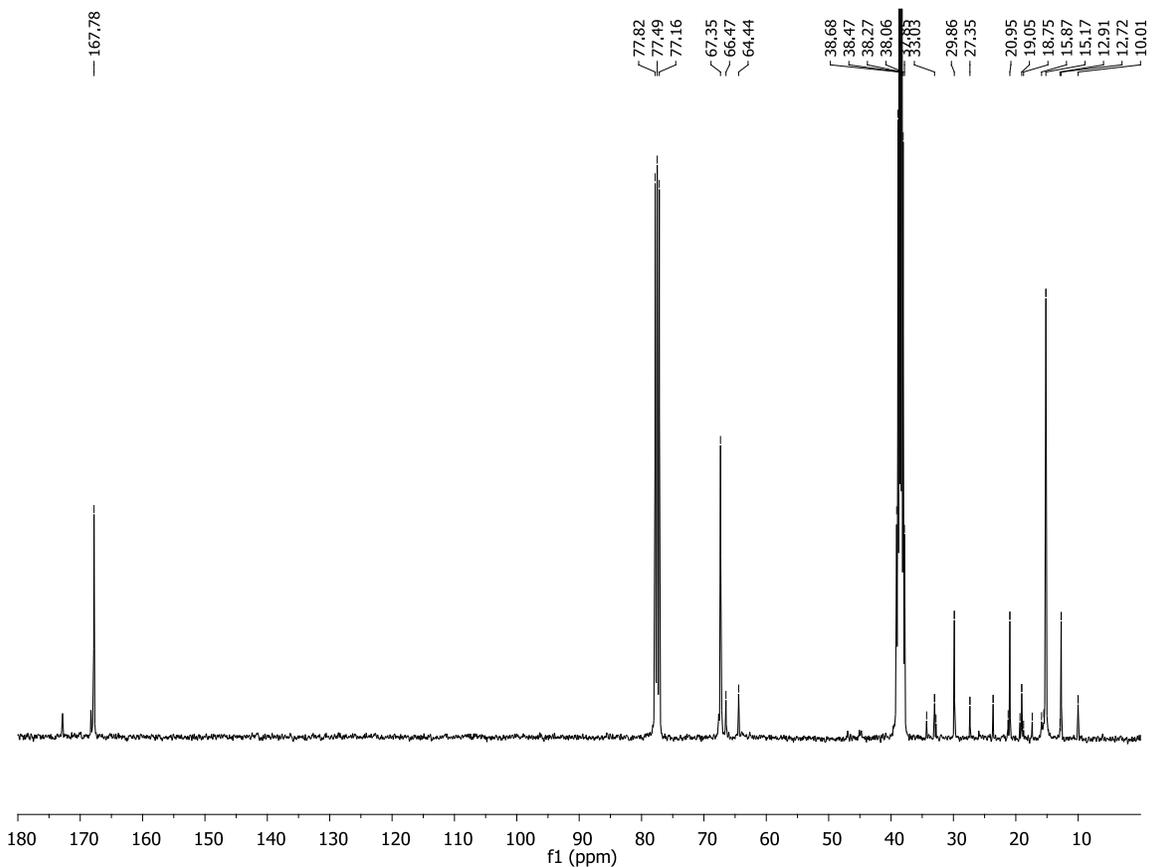
**Figure 7.** 2D NMR of PPI G-3 dendrimer (red) and PPI G-3 dendrimer with five (L)-lactide repeat units (blue). Both NMRs were taken in a 50:50 by weight mixture of  $d_6$  DMSO:CDCl<sub>3</sub>.



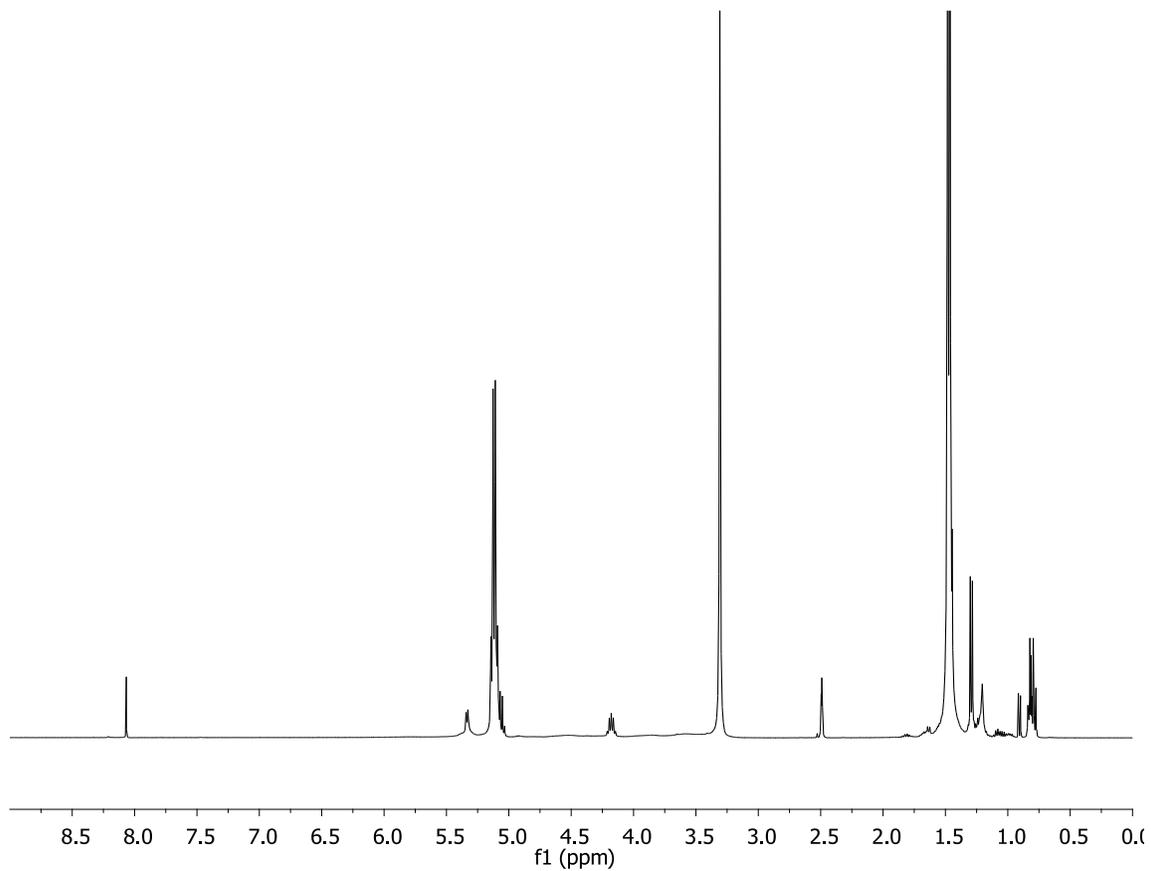
**Figure 8.** 2D NMR of PPI G-4 dendrimer (red) and PPI G-4 dendrimer with five (L)-lactide repeat units (blue). Both NMRs were taken in a 50:50 by weight mixture of  $d_6$  DMSO:CDCl<sub>3</sub>.



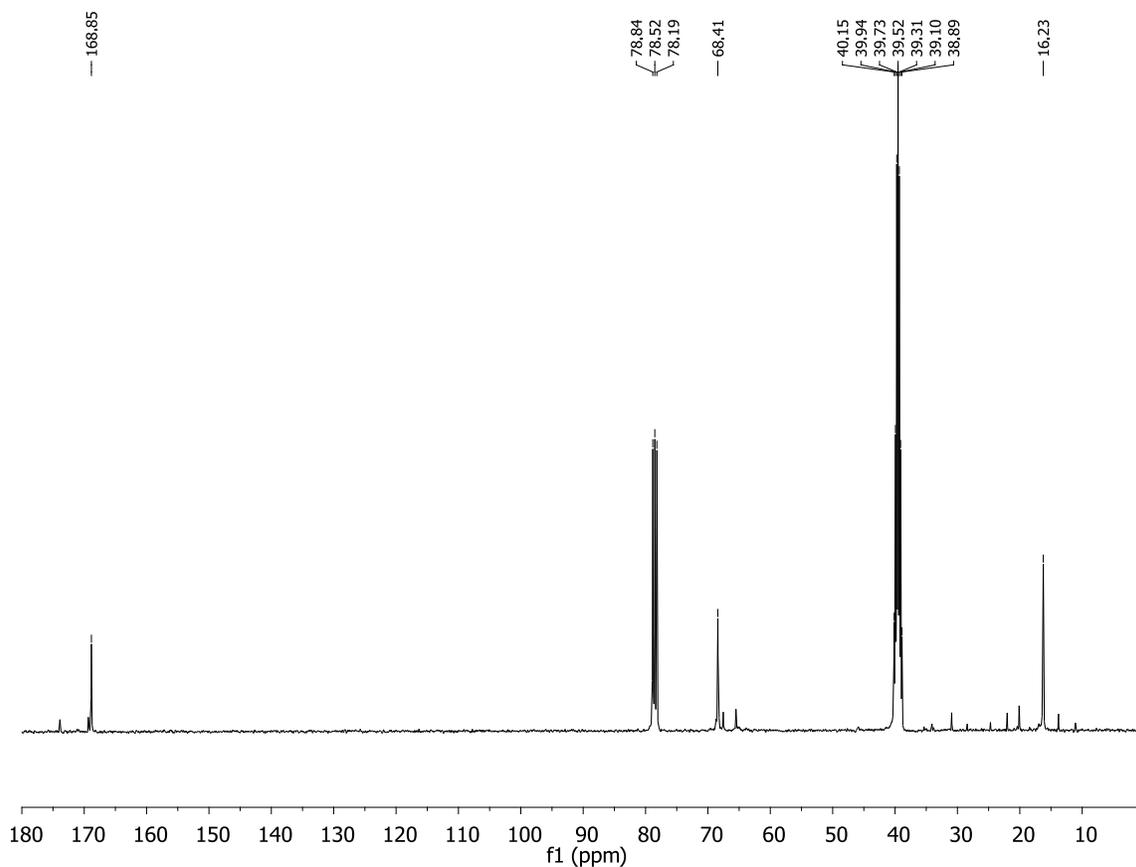
**Figure 9.**  $^1\text{H-NMR}$  of bis-MPA G-2 dendrimer with five (L)-lactide repeat units. NMR was taken in a 50:50 by weight mixture of  $\text{d}_6$  DMSO: $\text{CDCl}_3$ .



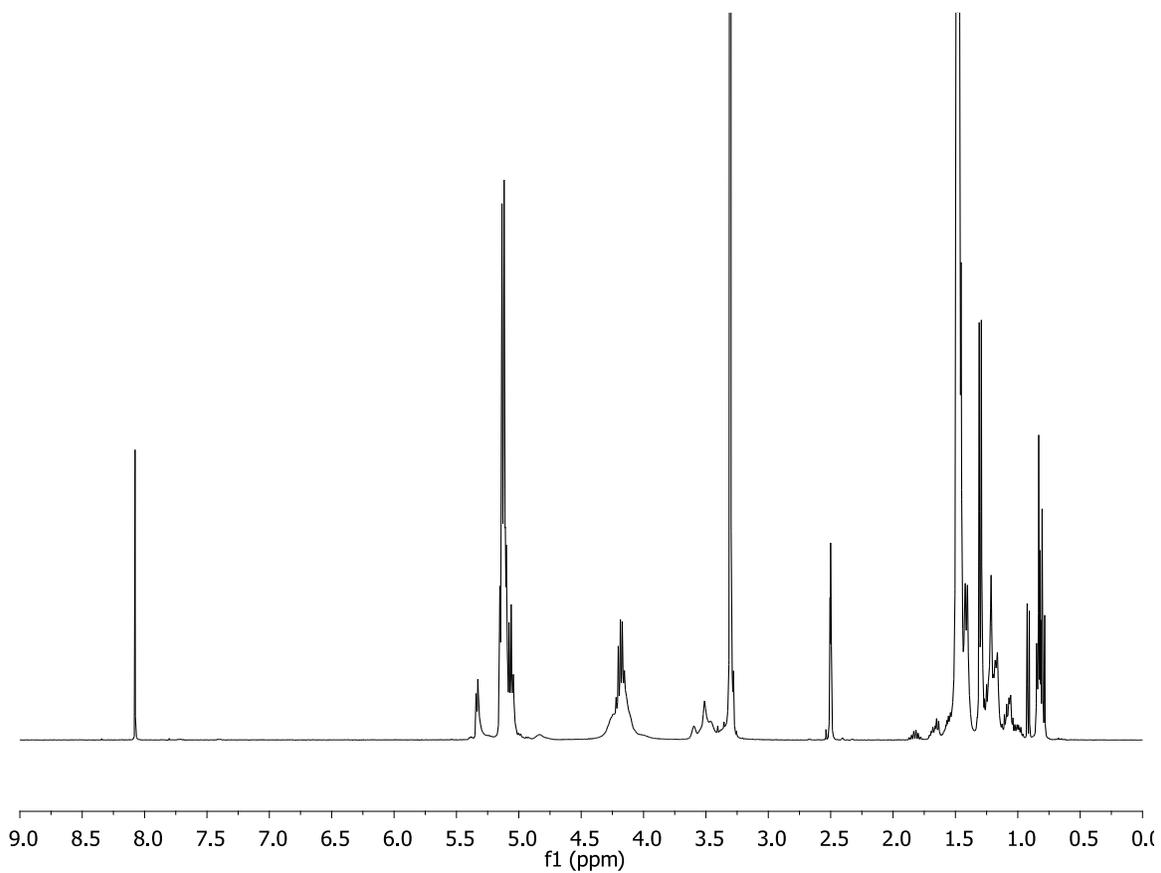
**Figure 10.**  $^{13}\text{C}$ -NMR of bis-MPA G-2 dendrimer with five (L)-lactide repeat units. NMR was taken in a 50:50 by weight mixture of  $\text{d}_6$  DMSO: $\text{CDCl}_3$ .



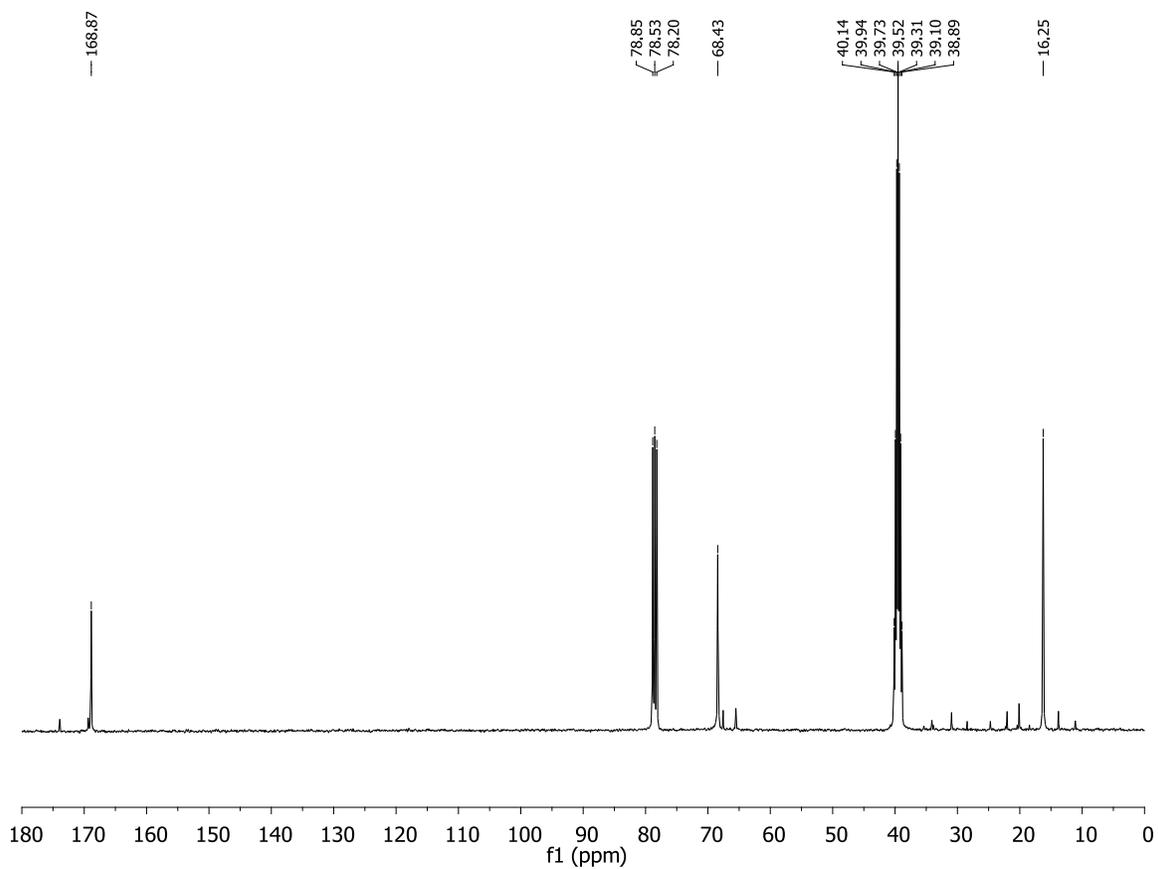
**Figure 11.**  $^1\text{H}$ -NMR of Boltorn dendrimer with five (L)-lactide repeat units. NMR was taken in a 50:50 by weight mixture of  $\text{d}_6$  DMSO: $\text{CDCl}_3$ .



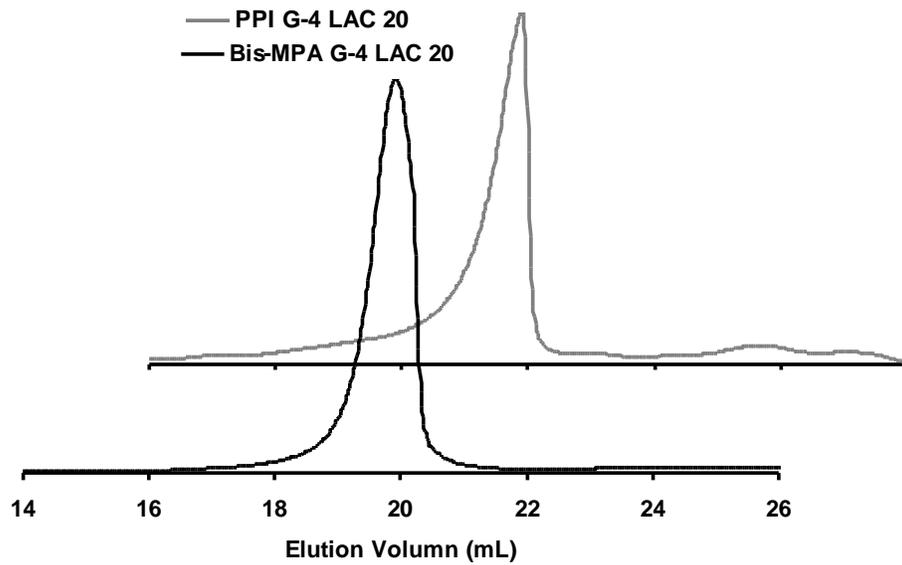
**Figure 12.**  $^{13}\text{C}$ -NMR of Boltorn dendrimer with five (L)-lactide repeat units. NMR was taken in a 50:50 by weight mixture of  $\text{d}_6$  DMSO: $\text{CDCl}_3$ .



**Figure 13.** <sup>1</sup>H-NMR of  $\beta$ -cyclodextrin with five (L)-lactide repeat units. NMR was taken in a 50:50 by weight mixture of  $d_6$  DMSO:CDCl<sub>3</sub>.



**Figure 14.**  $^{13}\text{C}$ -NMR of  $\beta$ -cyclodextrin with five (L)-lactide repeat units. NMR was taken in a 50:50 by weight mixture of  $\text{d}_6$  DMSO: $\text{CDCl}_3$ .



**Figure 15.** THF GPC traces of G-4 dendrimers with 20 (L)-lactide repeat units.