

Supplementary Information

Investigation of Peroxidase-Like Activity of Flower-Shaped Nano Biocatalyst from *Viburnum Opulus L.* Extract on the Polymerization Reactions

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Thermogravimetric Analyses

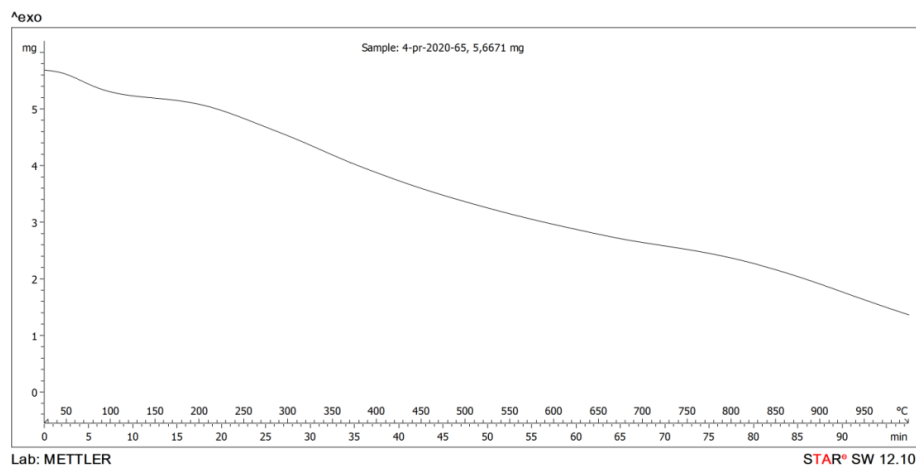


Figure S1. TGA Thermogram of polymer **1** (Table 1, entry 1).

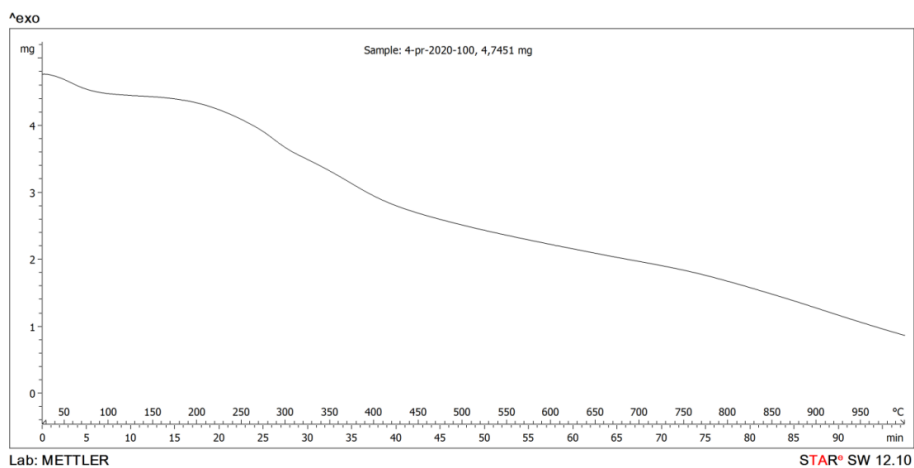


Figure S2. TGA Thermogram of polymer **2** (Table 1, entry 2).

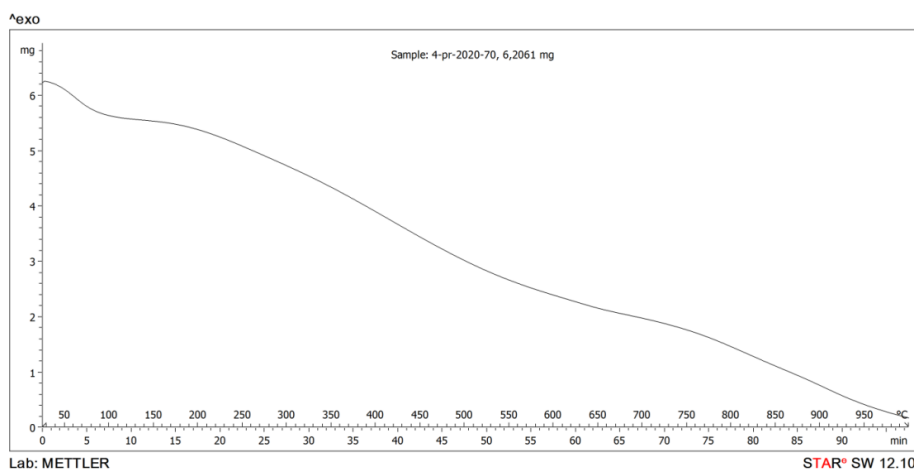


Figure S3. TGA Thermogram of polymer **3** (Table 1, entry 3).

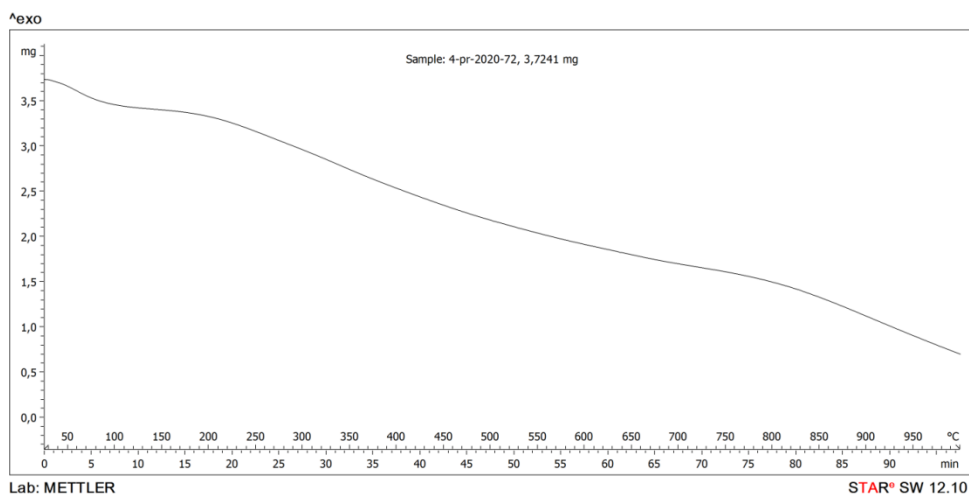


Figure S4. TGA Thermogram of polymer **4** (Table 1, entry 4).

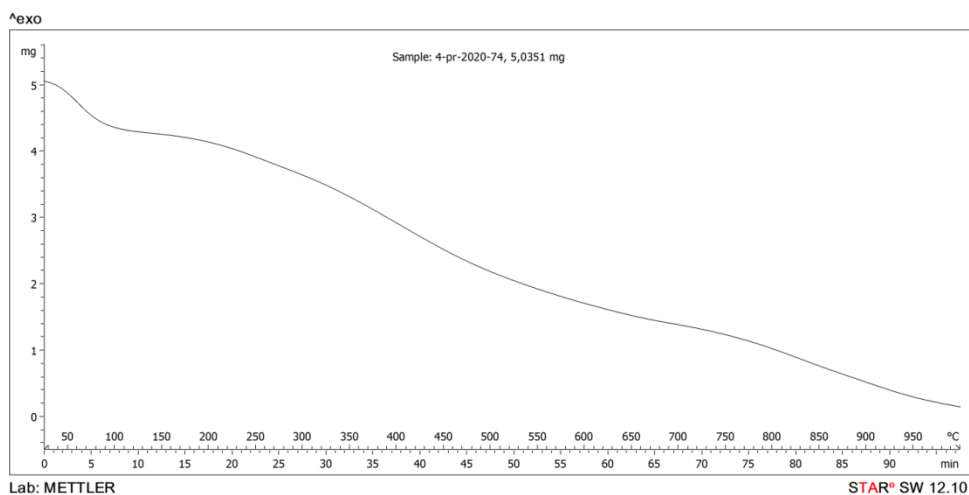


Figure S5. TGA Thermogram of polymer **5** (Table 1, entry 5).

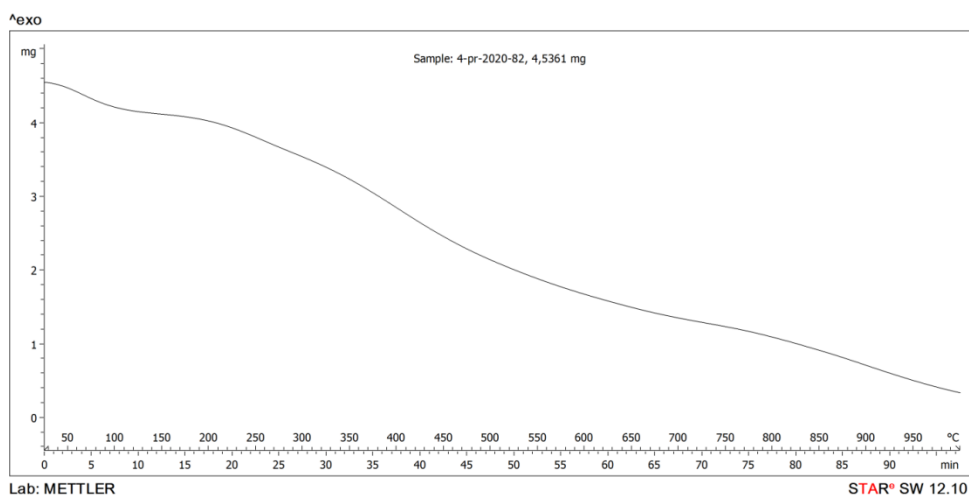


Figure S6. TGA Thermogram of polymer **6** (Table 1, entry 6).

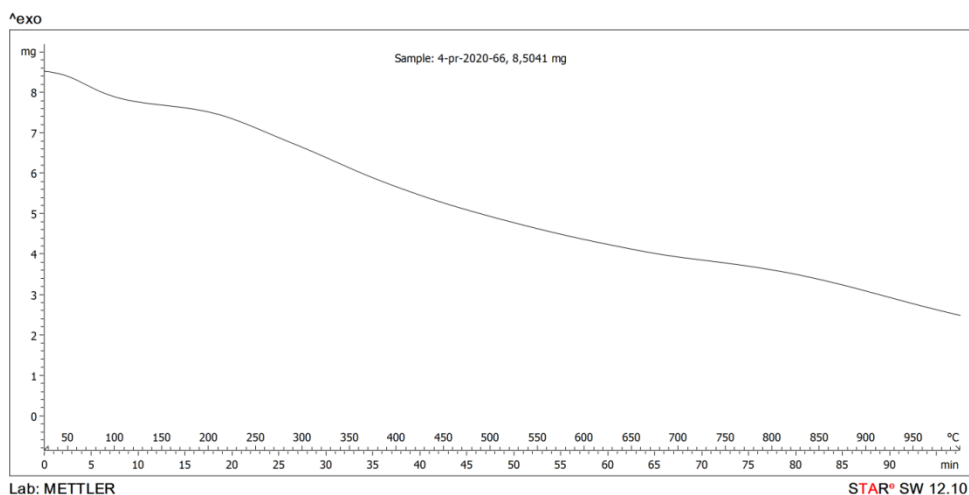


Figure S7. TGA Thermogram of polymer **7** (Table 1, entry 7).

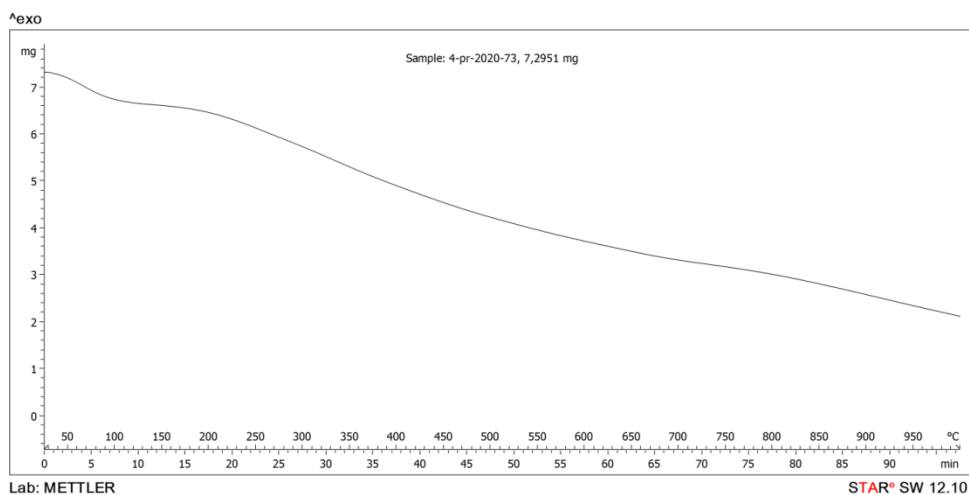


Figure S8. TGA Thermogram of polymer **8** (Table 1, entry 8).

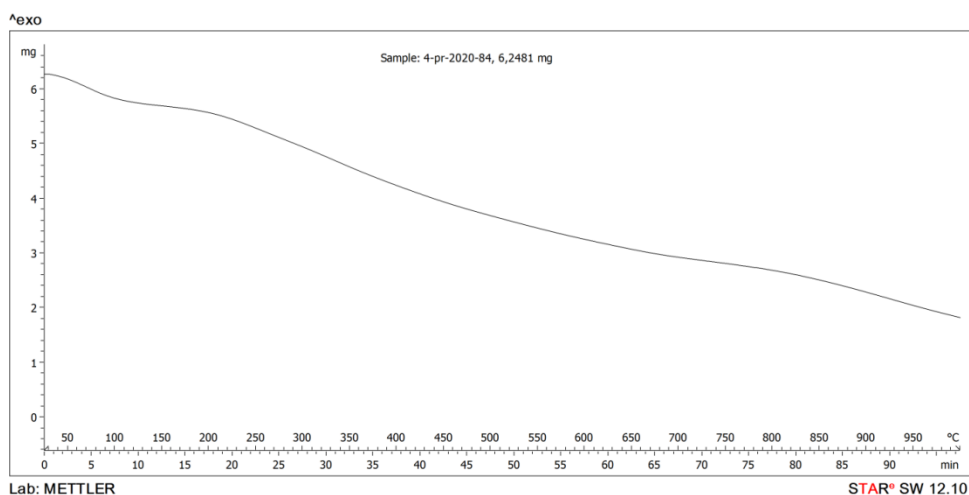


Figure S9. TGA Thermogram of polymer **9** (Table 1, entry 9).

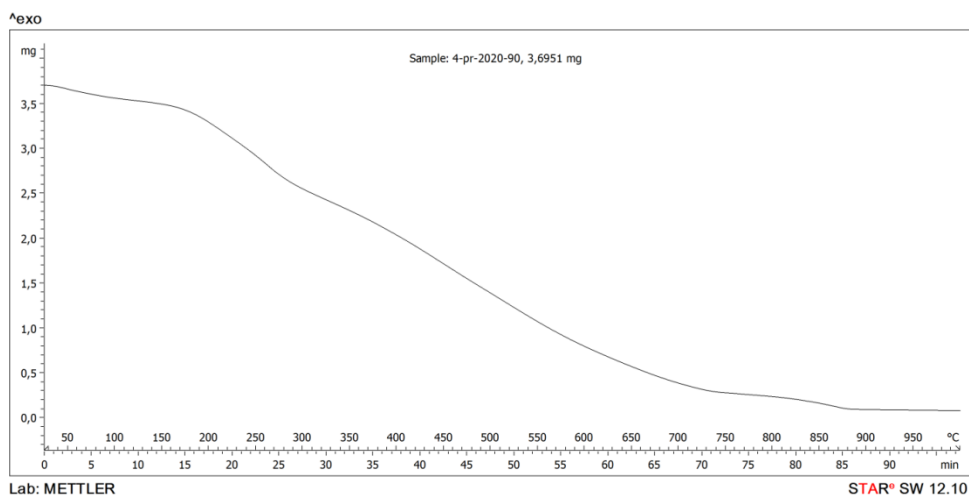


Figure S10. TGA Thermogram of polymer **10** (Table 1, entry 10).

Differential Scanning Calorimetry Thermograms

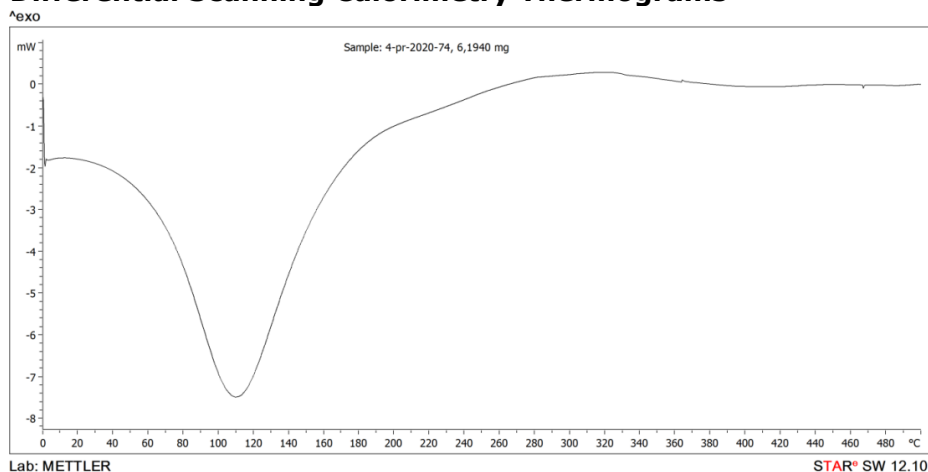


Figure S11. DSC Thermogram of polymer **7** (Table 1, entry 7).

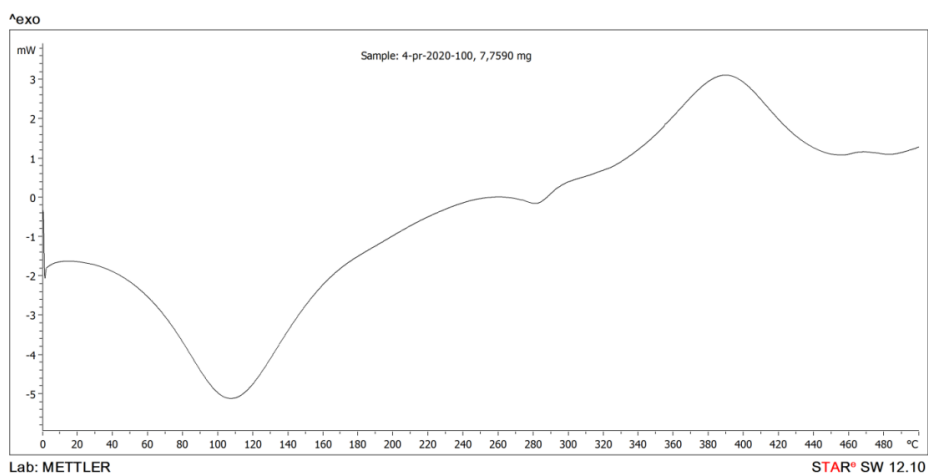


Figure S12. DSC Thermogram of polymer **9** (Table 1, entry 9).

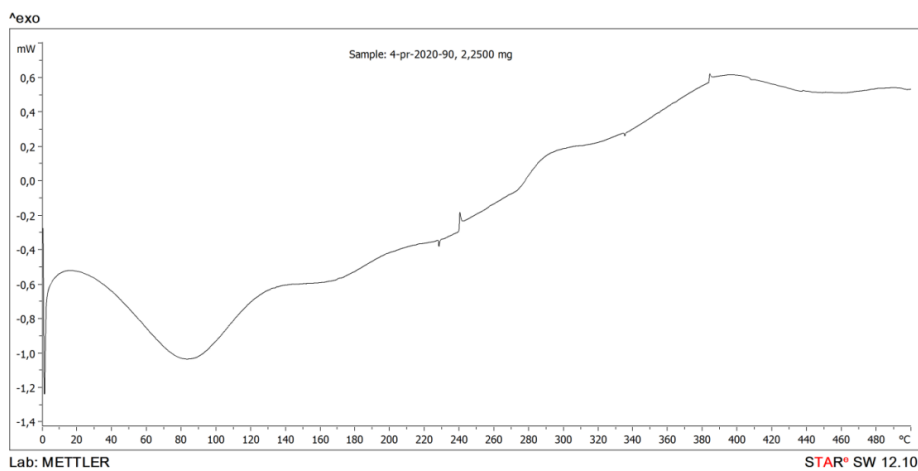


Figure S13. DSC Thermogram of polymer **10** (Table 1, entry 10).

Gel Permeation Chromatography (GPC) Data

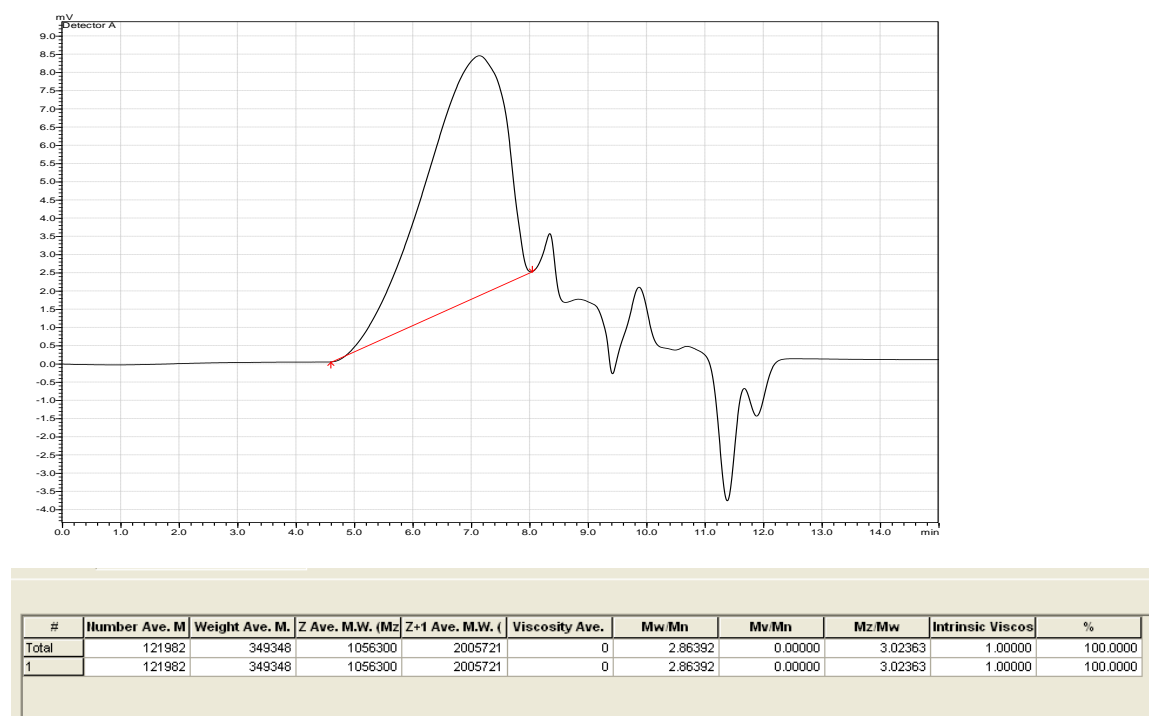


Figure S14. GPC Chromatogram of polymer **1** in DMF solvent (Table 1, entry 1).

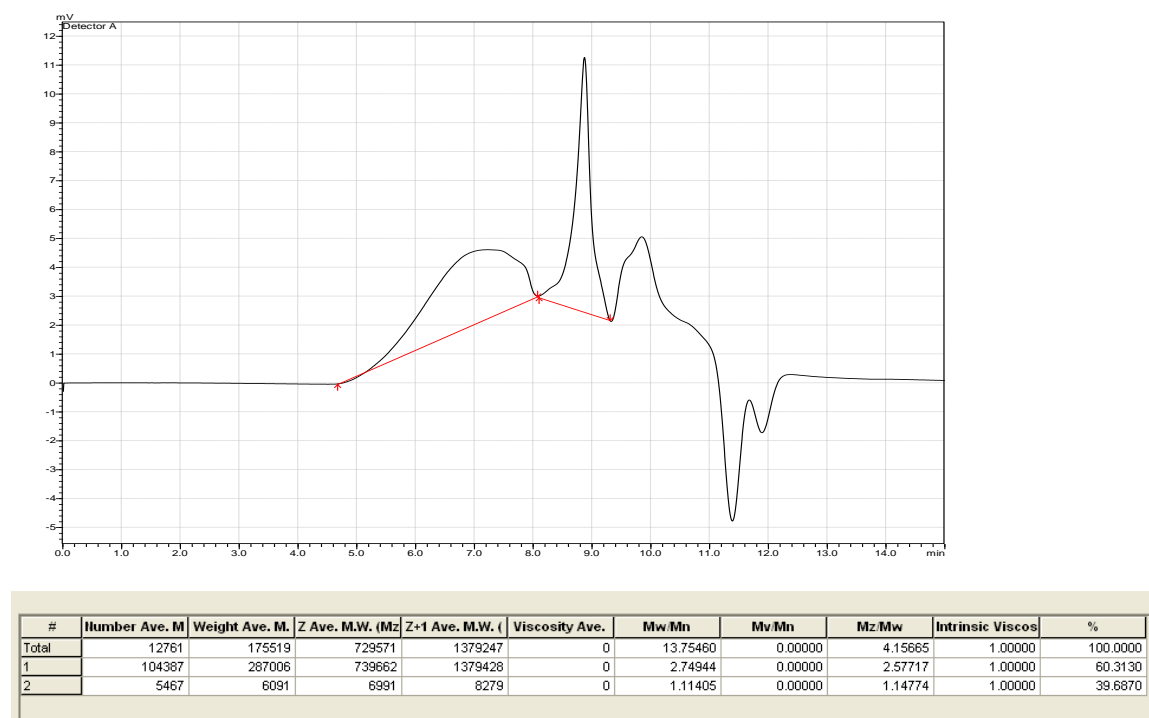
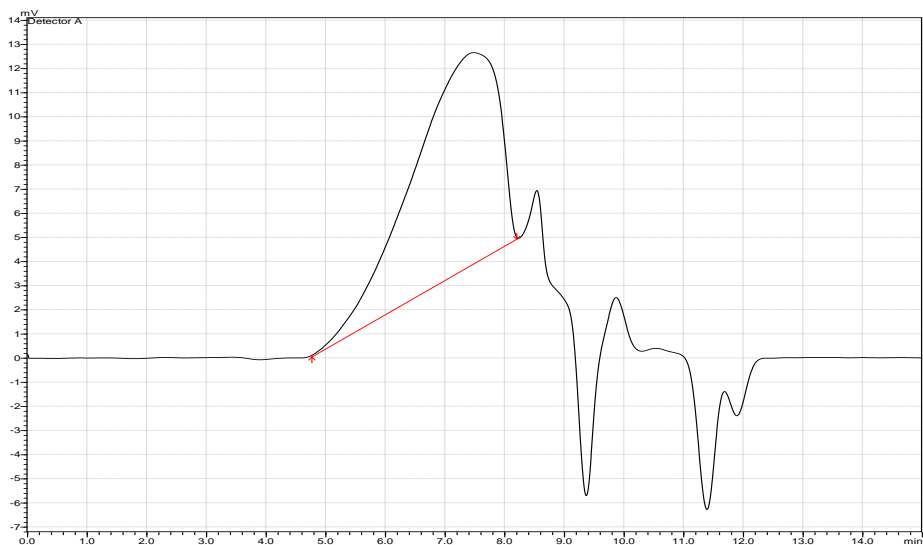
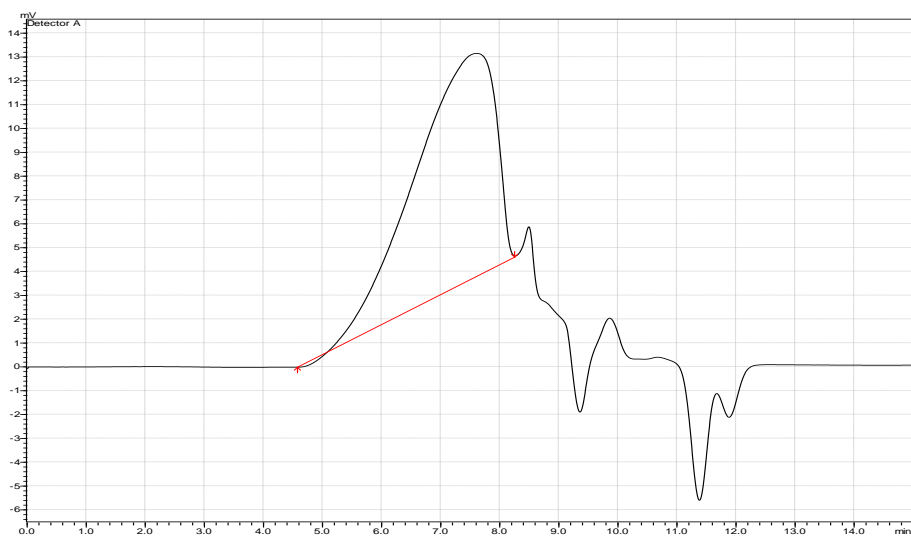


Figure S15. GPC Chromatogram of polymer **2** in DMF solvent (Table 1, entry 2).



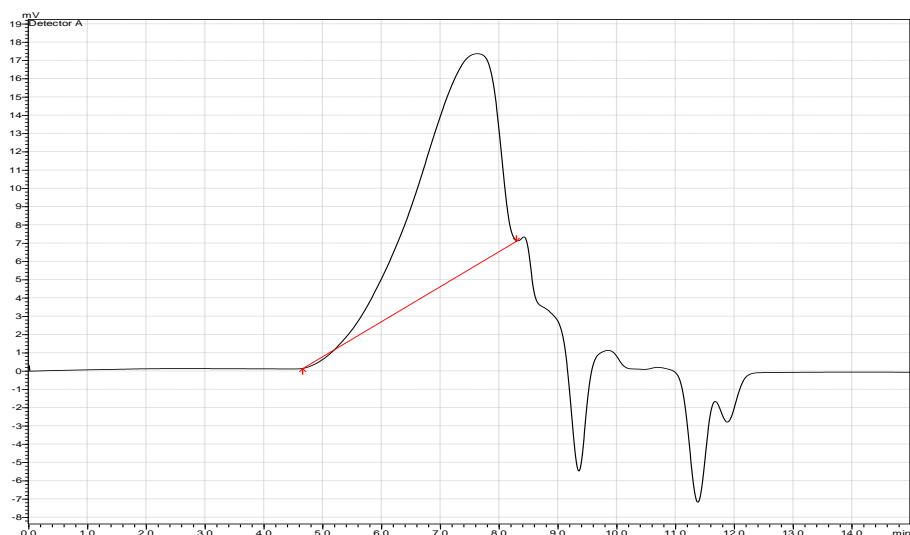
#	Number Ave. M	Weight Ave. M.	Z Ave. M.W. (Mz)	Z+1 Ave. M.W. (z)	Viscosity Ave.	Mw/Mn	Mv/Mn	Mz/Mw	Intrinsic Viscos	%
Total	77396	265507	1060451	2313684	0	3.43051	0.00000	3.99406	1.00000	100.0000
1	77396	265507	1060451	2313684	0	3.43051	0.00000	3.99406	1.00000	100.0000

Figure S16. GPC Chromatogram of polymer **3** in DMF solvent (Table 1, entry 3).



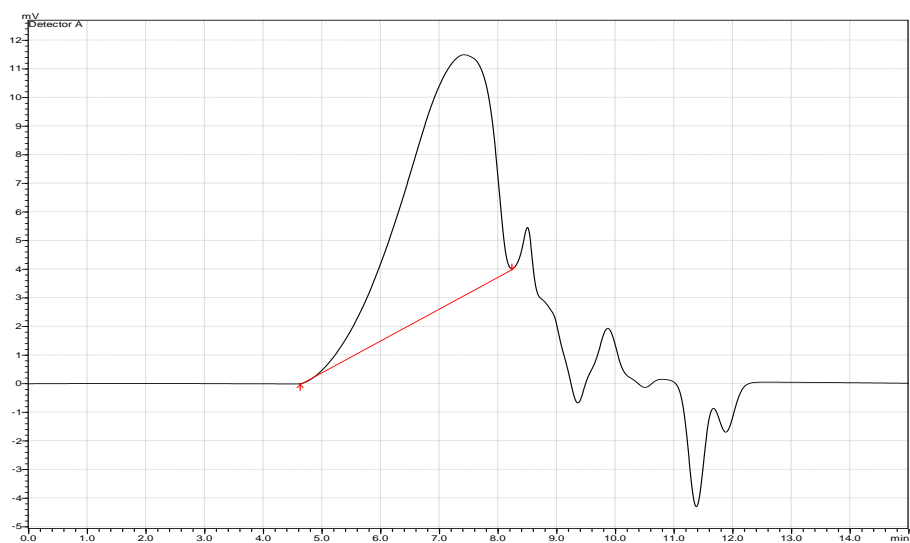
#	Number Ave. M	Weight Ave. M.	Z Ave. M.W. (Mz)	Z+1 Ave. M.W. (z)	Viscosity Ave.	Mw/Mn	Mv/Mn	Mz/Mw	Intrinsic Viscos	%
Total	71280	213542	696707	1345204	0	2.99584	0.00000	3.26262	1.00000	100.0000
1	71280	213542	696707	1345204	0	2.99584	0.00000	3.26262	1.00000	100.0000

Figure S17. GPC Chromatogram of polymer **4** in DMF solvent (Table 1, entry 4).



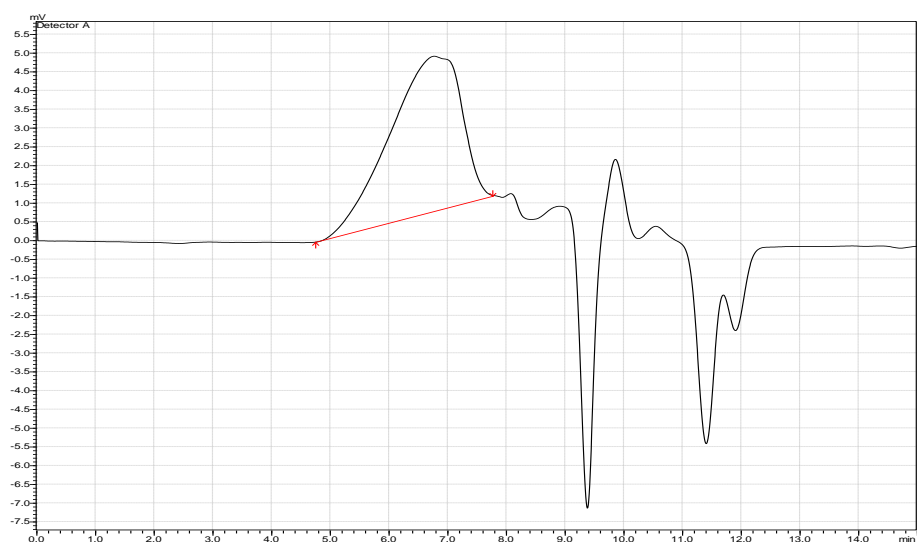
#	Number Ave. M	Weight Ave. M	Z Ave. M.W. (Mz)	Z+1 Ave. M.W. (Mz)	Viscosity Ave.	Mw/Mn	Mv/Mn	Mz/Mw	Intrinsic Viscos	%
Total	65530	180337	566729	1111876	0	2.75197	0.00000	3.14262	1.00000	100.0000
1	65530	180337	566729	1111876	0	2.75197	0.00000	3.14262	1.00000	100.0000

Figure S18. GPC Chromatogram of polymer **5** in DMF solvent (Table 1, entry 5).



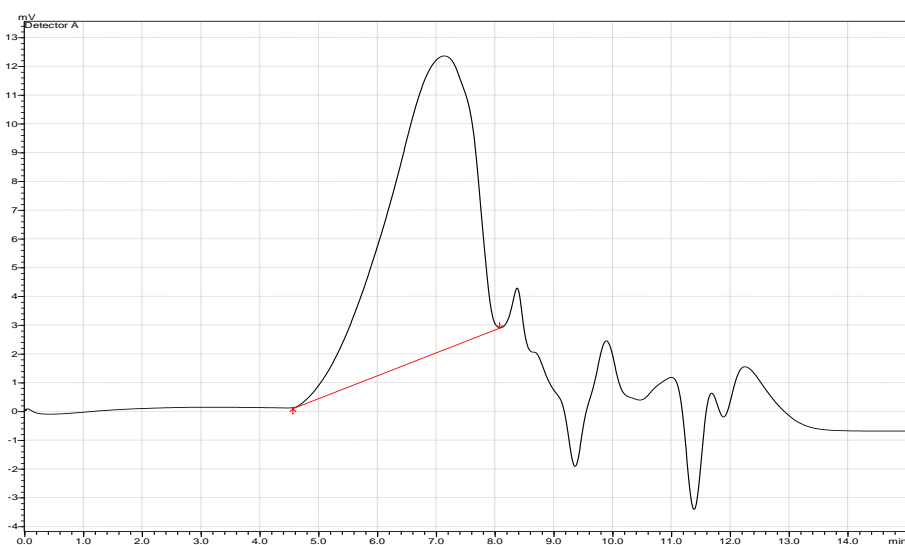
#	Number Ave. M	Weight Ave. M	Z Ave. M.W. (Mz)	Z+1 Ave. M.W. (Mz)	Viscosity Ave.	Mw/Mn	Mv/Mn	Mz/Mw	Intrinsic Viscos	%
Total	79639	257623	919692	1913374	0	3.22678	0.00000	3.56992	1.00000	100.0000
1	79639	257623	919692	1913374	0	3.22678	0.00000	3.56992	1.00000	100.0000

Figure S19. GPC Chromatogram of polymer **6** in DMF solvent (Table 1, entry 6).



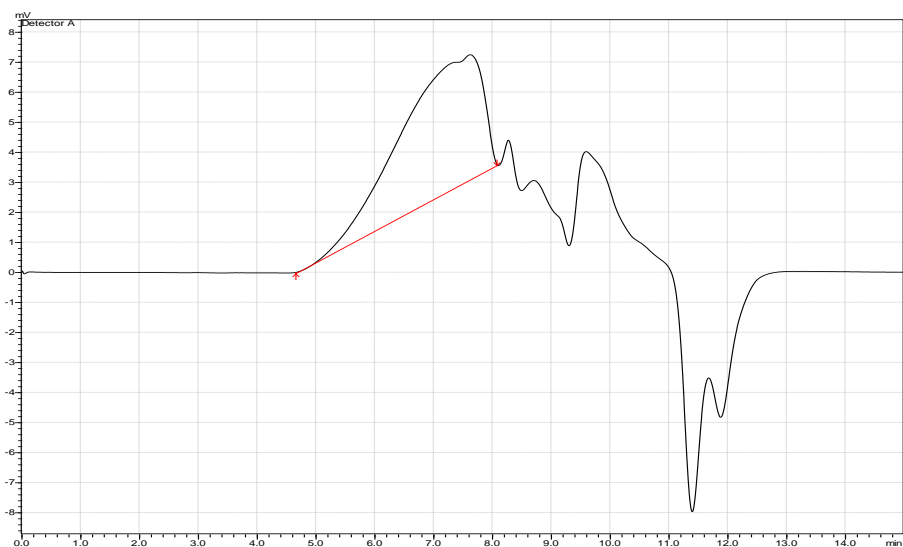
#	Number Ave. M	Weight Ave. M.	Z Ave. M.W. (Mz)	Z+1 Ave. M.W. (Viscosity Ave.	Mw/Mn	Mv/Mn	Mz/Mw	Intrinsic Viscos	%
Total	202299	457857	1076237	1880866	0	2.26327	0.00000	2.35060	1.00000	100.0000
1	202299	457857	1076237	1880866	0	2.26327	0.00000	2.35060	1.00000	100.0000

Figure S20. GPC Chromatogram of polymer **7** in DMF solvent (Table 1, entry 7).



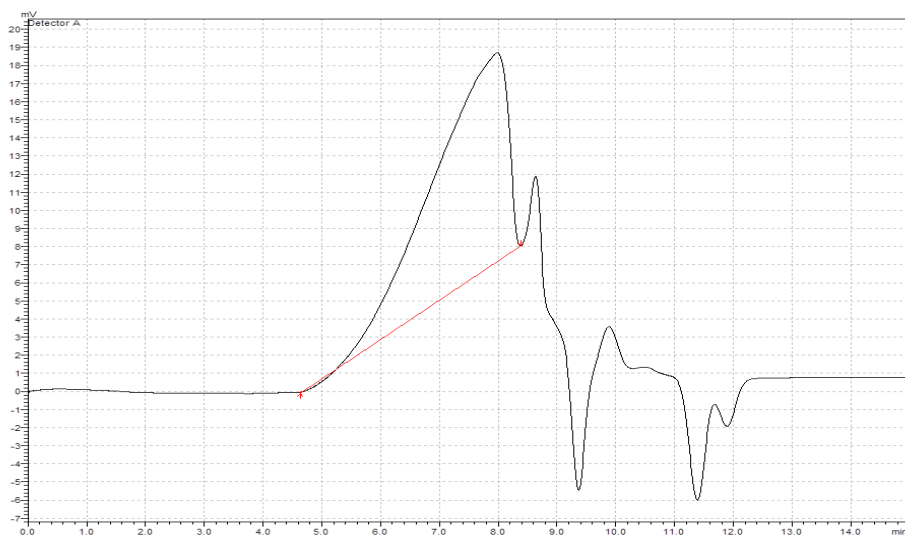
#	Number Ave. M	Weight Ave. M.	Z Ave. M.W. (Mz)	Z+1 Ave. M.W. (Viscosity Ave.	Mw/Mn	Mv/Mn	Mz/Mw	Intrinsic Viscos	%
Total	118158	383535	1373050	2820991	0	3.24596	0.00000	3.57999	1.00000	100.0000
1	118158	383535	1373050	2820991	0	3.24596	0.00000	3.57999	1.00000	100.0000

Figure S21. GPC Chromatogram of polymer **8** in DMF solvent (Table 1, entry 8).



#	Number Ave. M	Weight Ave. M.	Z Ave. M.W. (Mz)	Z+1 Ave. M.W. (Z+1)	Viscosity Ave.	Mw/Mn	Mv/Mn	Mz/Mw	Intrinsic Viscos	%
Total	89657	270811	895291	1959169	0	3.02051	0.00000	3.30596	1.00000	100.0000
1	89657	270811	895291	1959169	0	3.02051	0.00000	3.30596	1.00000	100.0000

Figure S22. GPC Chromatogram of polymer **9** in DMF solvent (Table 1, entry 9).



#	Number Ave. M	Weight Ave. M.	Z Ave. M.W. (Mz)	Z+1 Ave. M.W. (Z+1)	Viscosity Ave.	Mw/Mn	Mv/Mn	Mz/Mw	Intrinsic Viscos	%
Total	49062	153570	574435	1480963	0	3.13012	0.00000	3.74054	1.00000	100.0000
1	49062	153570	574435	1480963	0	3.13012	0.00000	3.74054	1.00000	100.0000

Figure S23. GPC Chromatogram of polymer **10** in DMF solvent (Table 1, entry 10).