Supplementary information

RAFT polymerization of Bromotyramine-based 4 -acryloyl-1,2,3- triazole: A Functional Monomers and Polymers Family through Click Chemistry.

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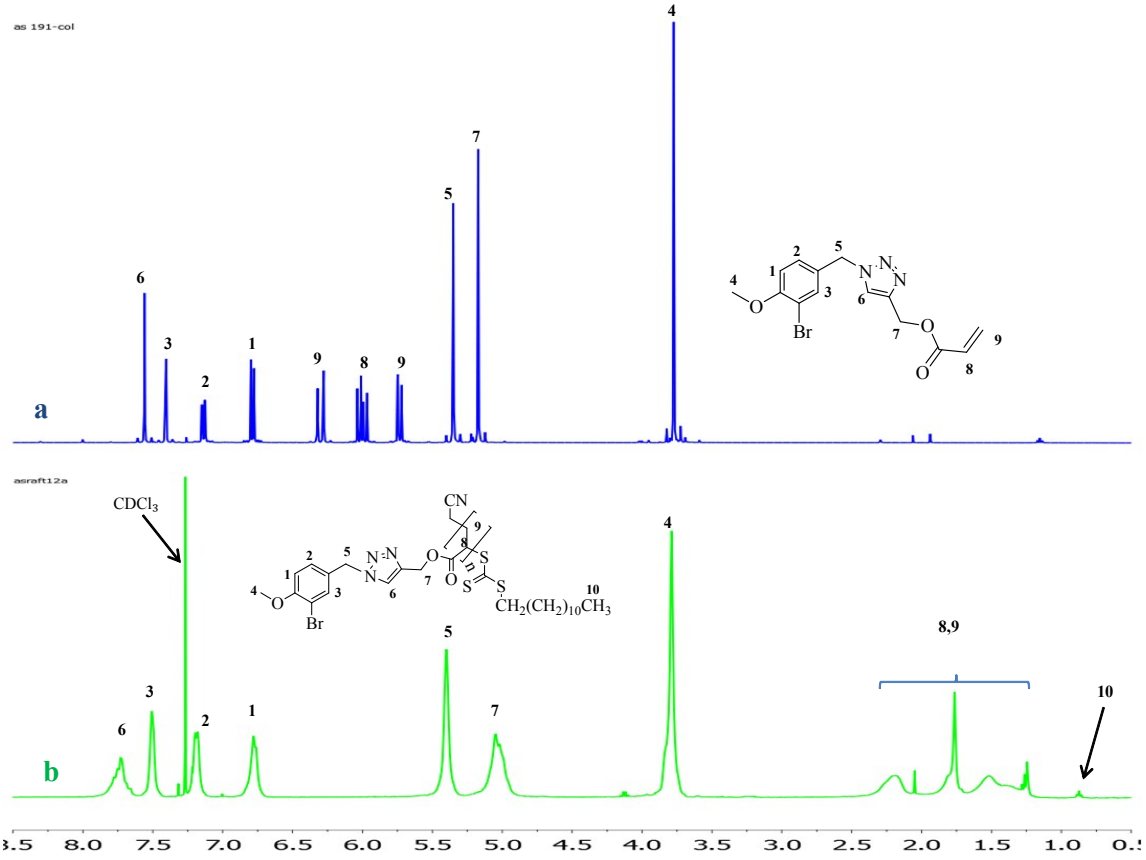

Figure 1. ^{1}H-NMR spectra of (a) **4-ATri 4a** in $CDCl_3$, (b) its purified homopolymer (**4-ATri 4a**) in $CDCl_3$

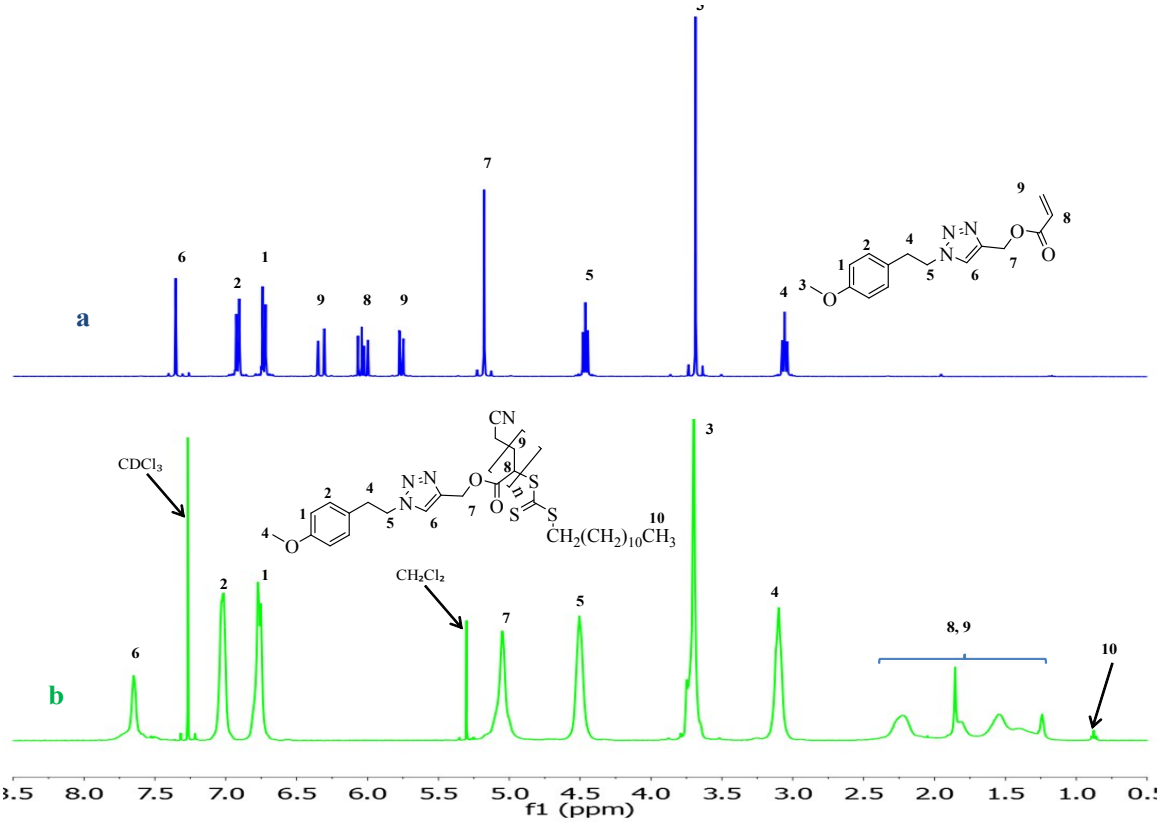

Figure 2. ^{1}H-NMR spectra of (a) **4-ATri 4c** in $CDCl_3$, (b) its purified homopolymer (**4-ATri 4c**) in $CDCl_3$

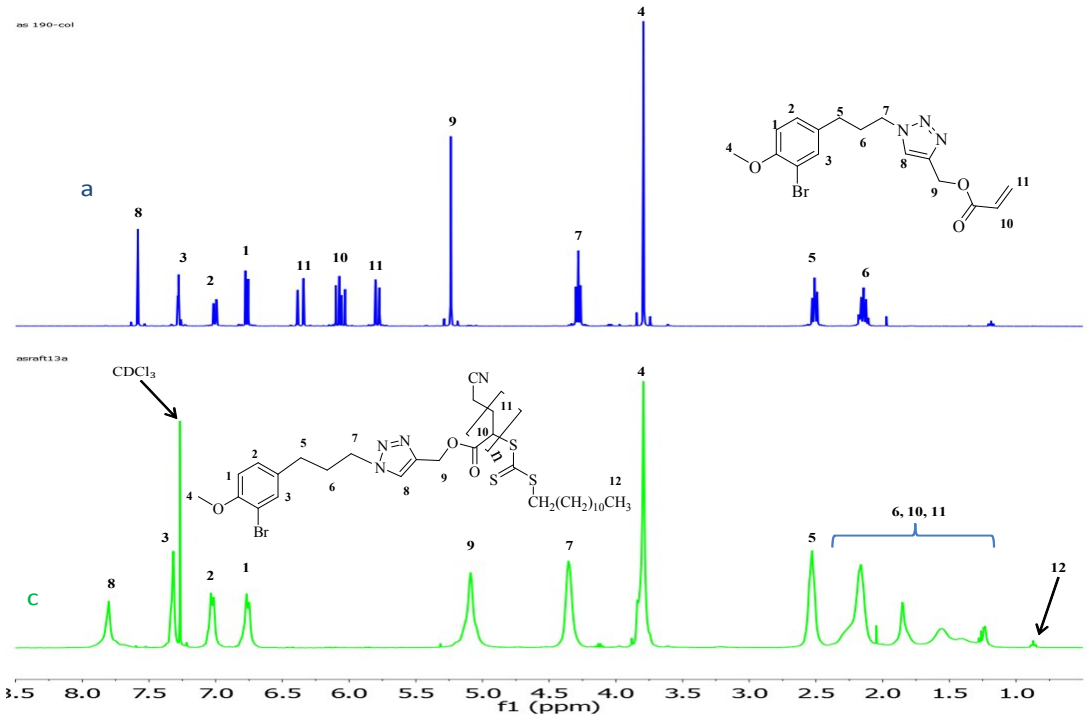

Figure 3. ^{1}H-NMR spectra of (a) **4-ATri 4d** in $CDCl_3$, (b) its purified homopolymer (**4-ATri 4d**) in $CDCl_3$

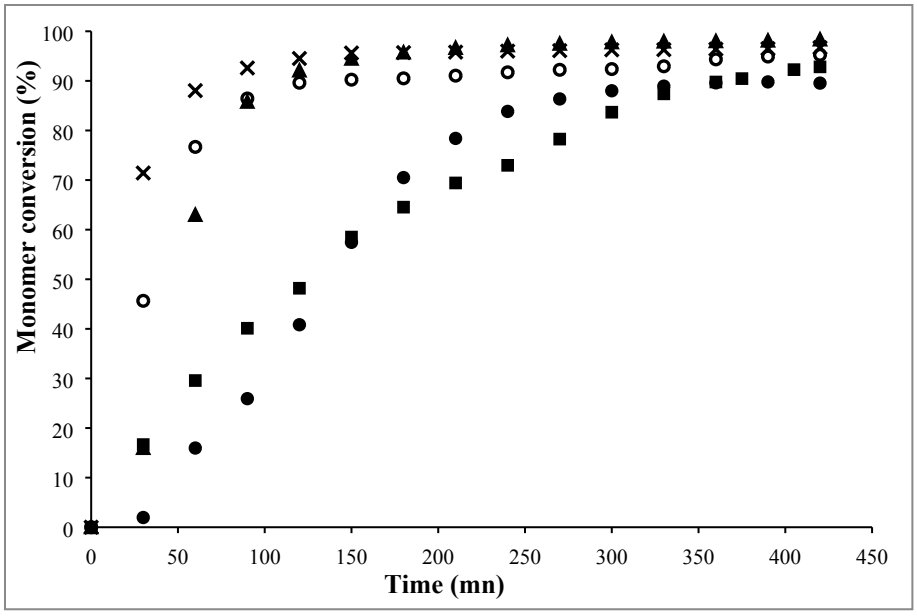

Figure 4. Monomer conversion vs time. Homopolymerizations of triazole acrylate 4-ATri 4b using CMDT as CTA. CMDT/AIBN molar ratio of 10/1. DMSO-d_6 at 70°C (▲), DMSO-d_6 at 60°C (■), DMF-d_7 at 70°C (**o**), DMF-d_7 at 60°C (•) and DMSO-d_6 with absence of CMDT at 70°C (×).

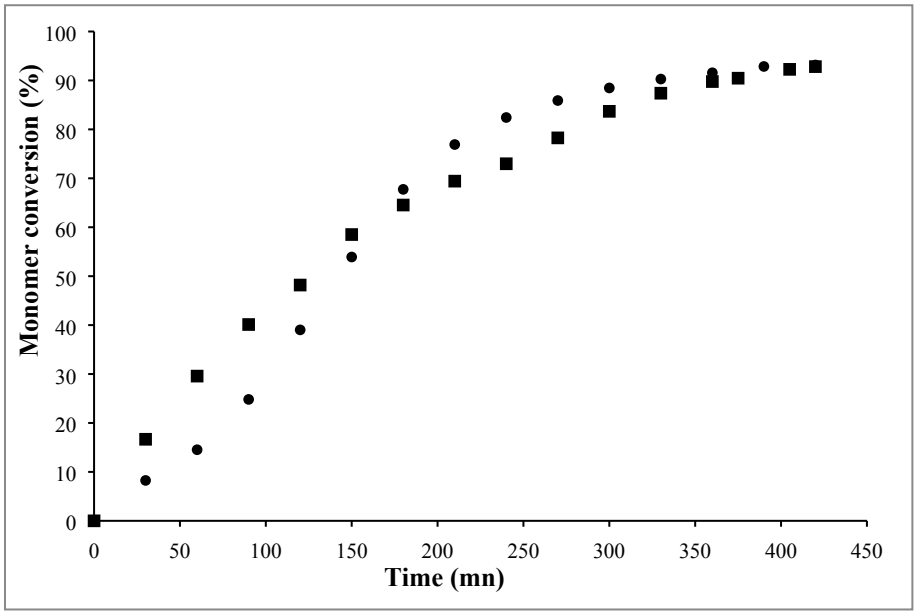

Figure 5. Monomer conversion vs time. Homopolymerizations of triazole acrylate 4-ATri 4b at 60°C. CTA/AIBN molar ratio of 10/1 in DMSO-d_6 using CMDT(■) and DDMAT (•) as CTA.

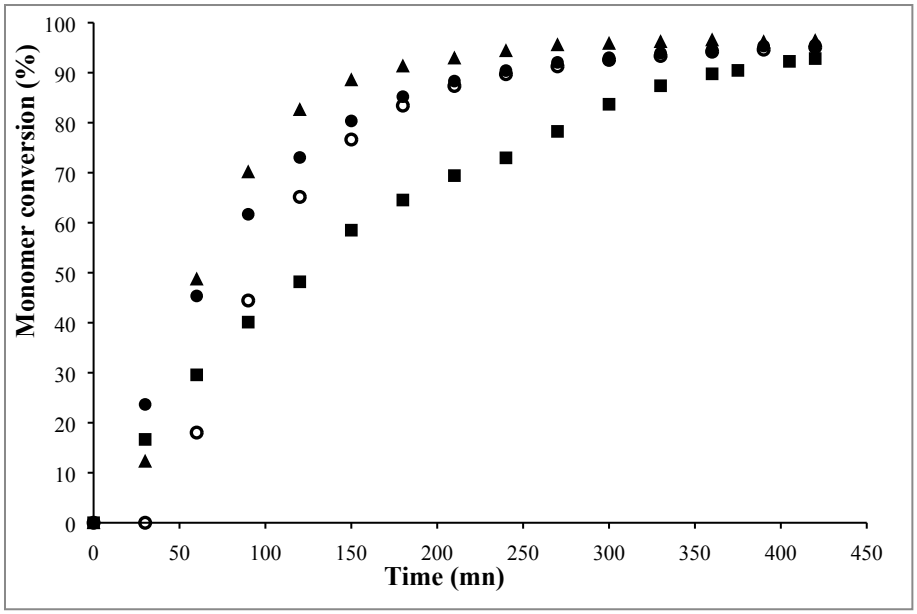

Figure 6. Monomer conversion *vs* time. Homopolymerizations of triazole acrylates. CDMT/AIBN molar ratio of 10/1 at 60°C in DMSO-d_6. 4-ATri 4a (▲), 4-ATri 4b (■), 4-ATri 4c (**o**) and 4-ATri 4d (●).

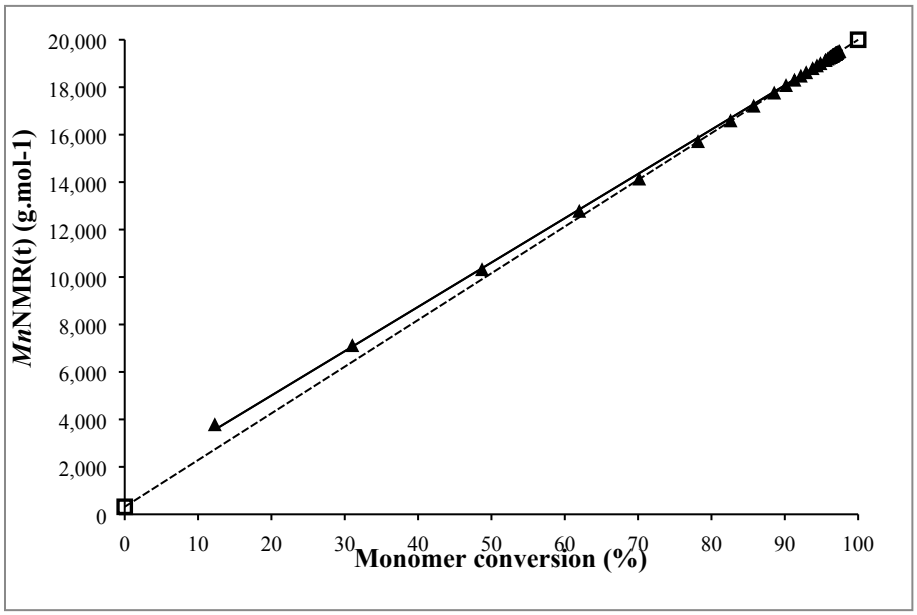

Figure 7. Evolution of M_n^{NMR} (t) *vs* monomer conversion during the RAFT polymerization of 4-ATri 4a (▲) at 60°C in DMSO-d_6.

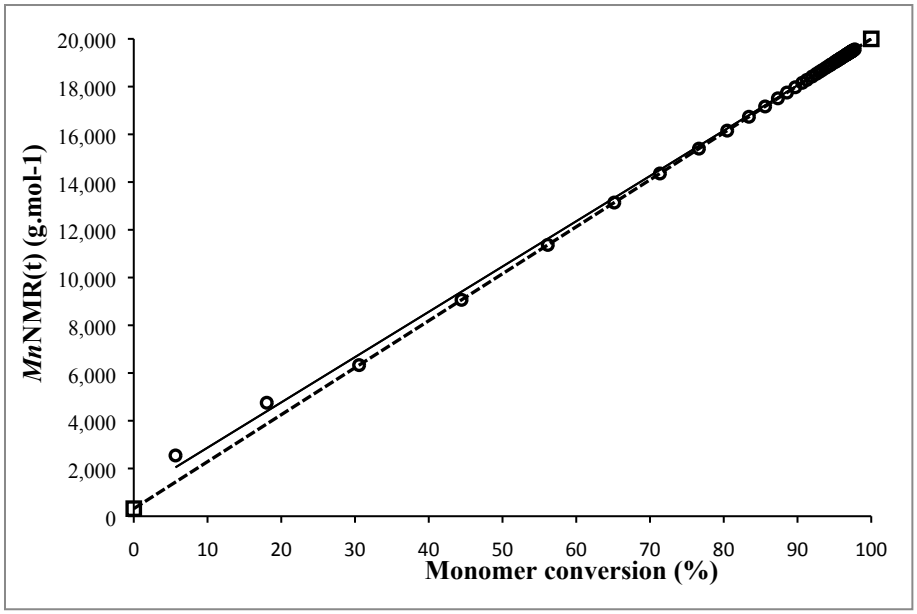

Figure 8. Evolution of M_n^{NMR} (t) *vs* monomer conversion during the RAFT polymerization of 4-ATri 4c (**o**) at 60°C in DMSO-d_6.

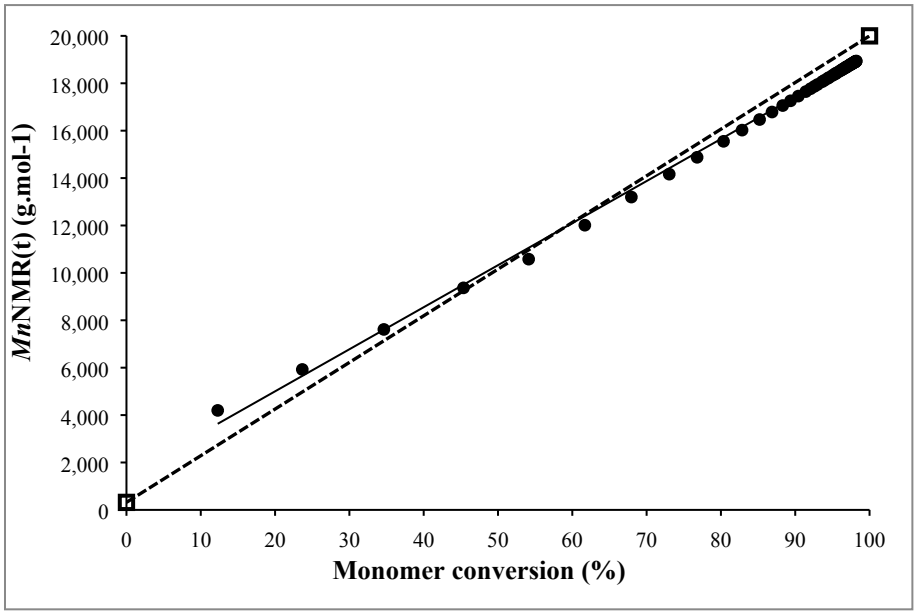

Figure 9. Evolution of M_n^{NMR} (t) *vs* monomer conversion during the RAFT polymerization of 4-ATri 4d (•) at 60°C in DMSO-d_6.

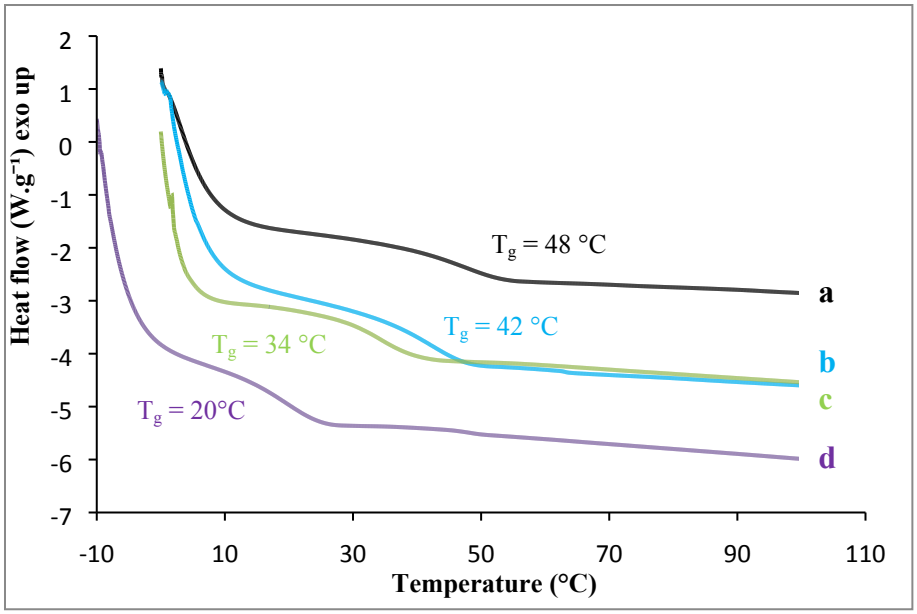

Figure 10. DCS thermograms of (**a**) p(4-ATri 4a), (**b**) p(4-ATri 4b), (**c**) p(4-ATri 4c) and (**d**) p(4-ATri 4d).

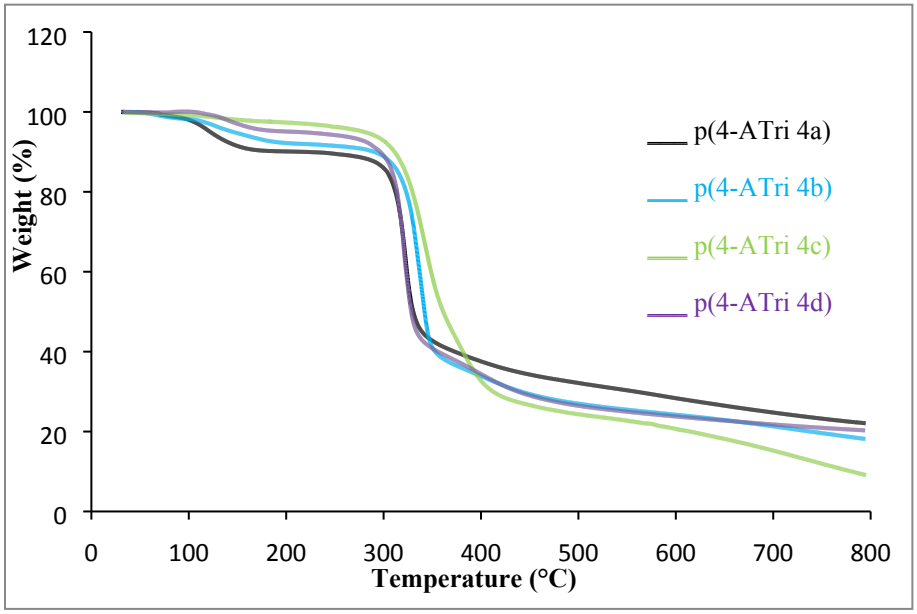

Figure 11. TGA traces of (**a**) p(4-ATri 4a), (**b**) p(4-ATri 4b), (**c**) p(4-ATri 4c) and (**d**) p(4-ATri 4d) under nitrogen at a heating rate of 10 °C/min.

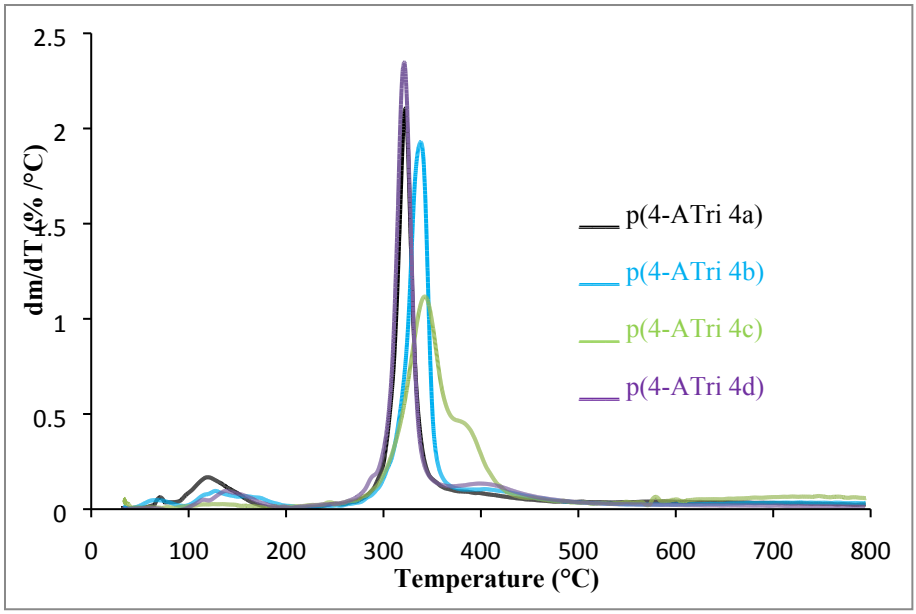

Figure 12. TGA weight loss derivative as a function of temperature for (**a**) p(4-ATri 4a), (**b**) p(4-ATri 4b), (**c**) p(4-ATri 4c) and (**d**) p(4-ATri 4d) under nitrogen at a heating rate of 10 °C/min.