Electronic Supplementary Material (ESI) for Polymer Chemistry.

Supporting Information

Functionalized Microporous Organic Nanotube Networksas a New Platform for Highly Efficient Heterogeneous Catalysis

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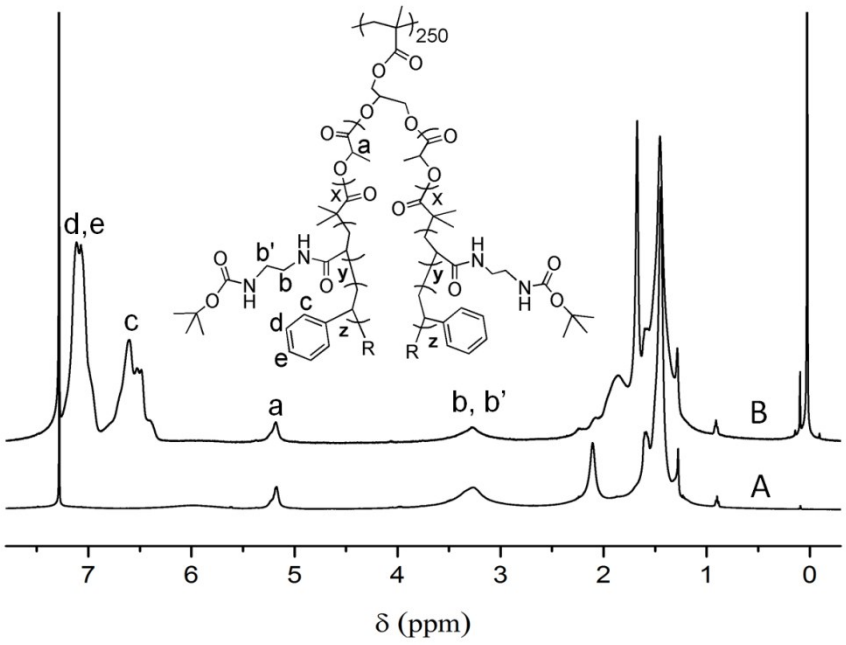


Figure S1.^{1}HNMR ($CDCl_3$) spectra of Poly(GM-g-LA-PBAEAM) (A) and Poly(GM-g-LA-PBAEAM-g-St) (B).

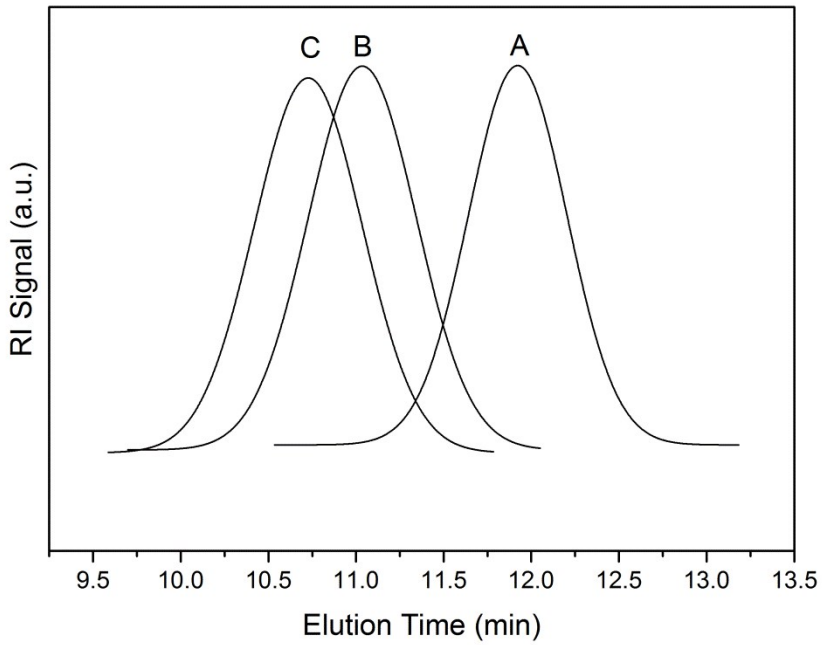


Figure S2. GPC characterization of Poly(GM-g-LA-TC) (A), Poly(GM-g-LA-PBAEAM) (B) and Poly(GM-g-LA-PBAEAM-g-St) (C).

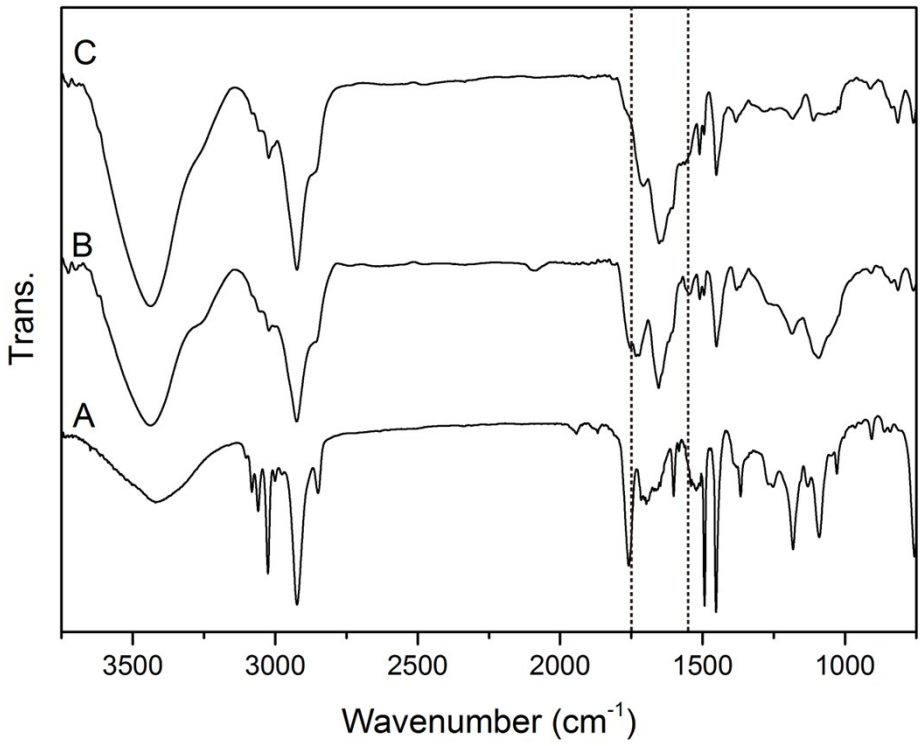


Figure S3. IR characterization of bottlebrush copolymer Poly(GM-g-LA-PBAEAM-g-St)(**A**), after cross-linked (**B**) and after hydrolysied (C).

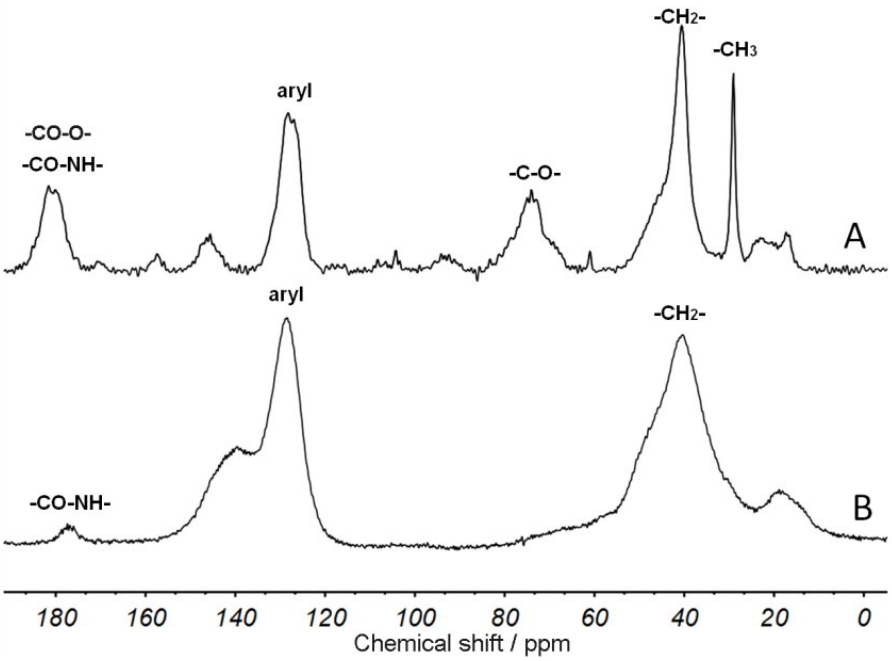


Figure S4. Solid state ^{13}C CP-MAS NMR spectra of the bottlebrush copolymer Poly(GM-g-LA-PBAEAM-g-St) (**A**) and the NH_2-MONNs (B).

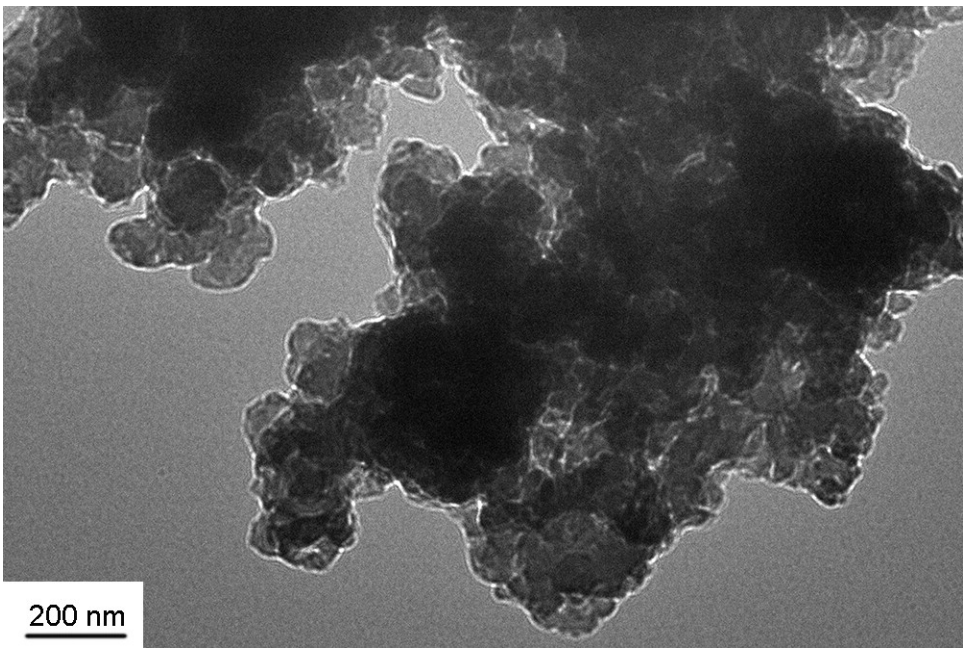


Figure S5.TEM image of the NH_2-OONNs.

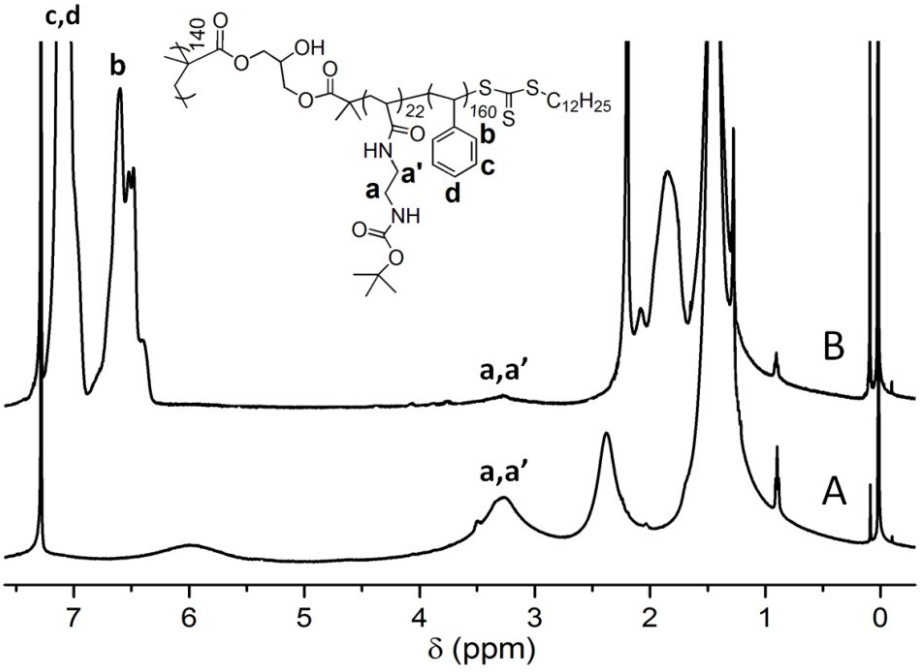


Figure S6. ^{1}HNMR ($CDCl_3$) spectra of Poly(GM-g-PBAEAM) (A) and Poly(GM-g-PBAEAM-g-St) (B).

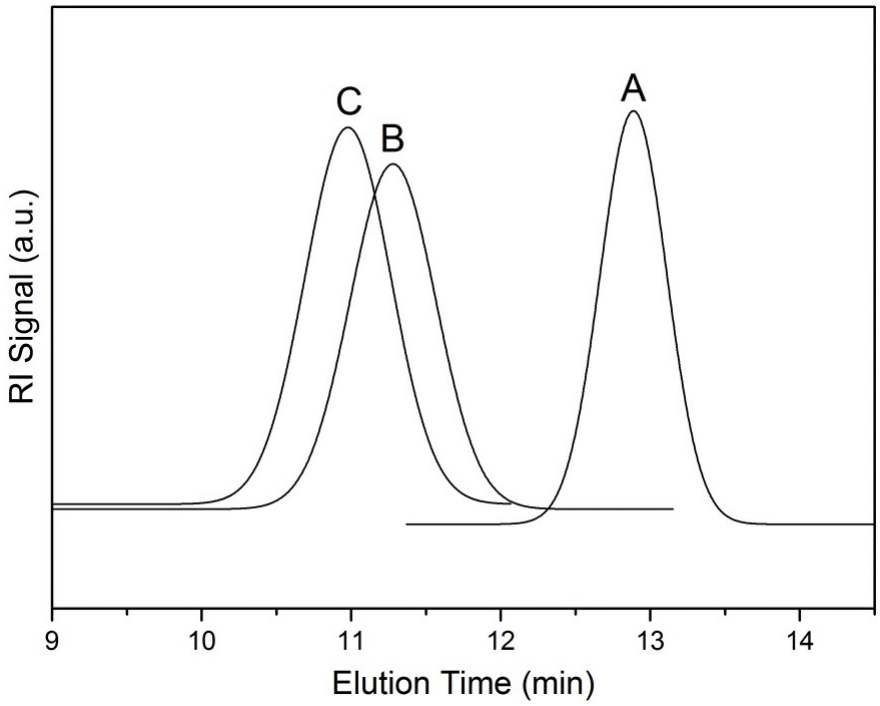


Figure S7. GPC characterization of Poly(GM-g-TC) (A), Poly(GM-g-PBAEAM) (B) and Poly(GM-g-PBAEAM-g-St) (C).

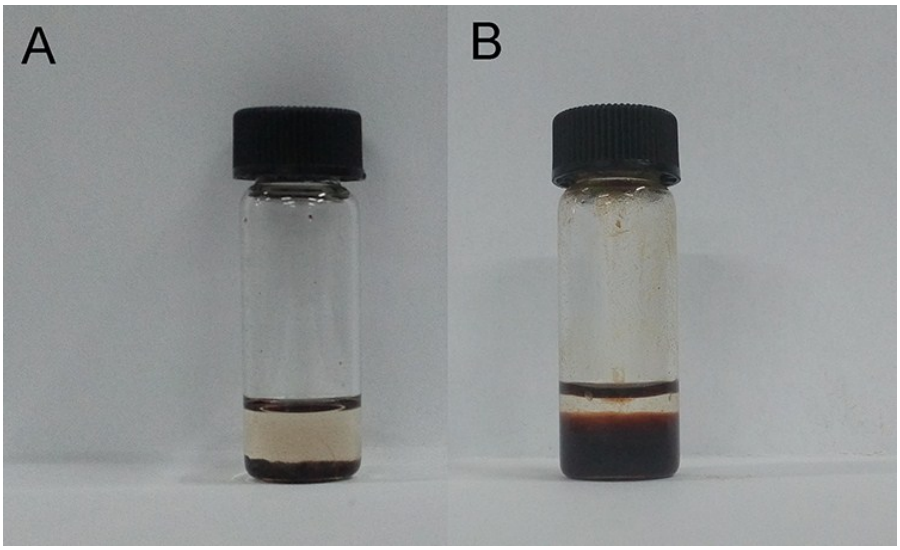


Figure S8. Photographs of the NH_2-MONNs stirred in toluene at 80^{o}Cfor 0 min (A) and 45min (B). These photographs indicate that the NH_2-MONNs are remarkably swollen after stirring in toluene solvent, which is attributed to the flexible framework.

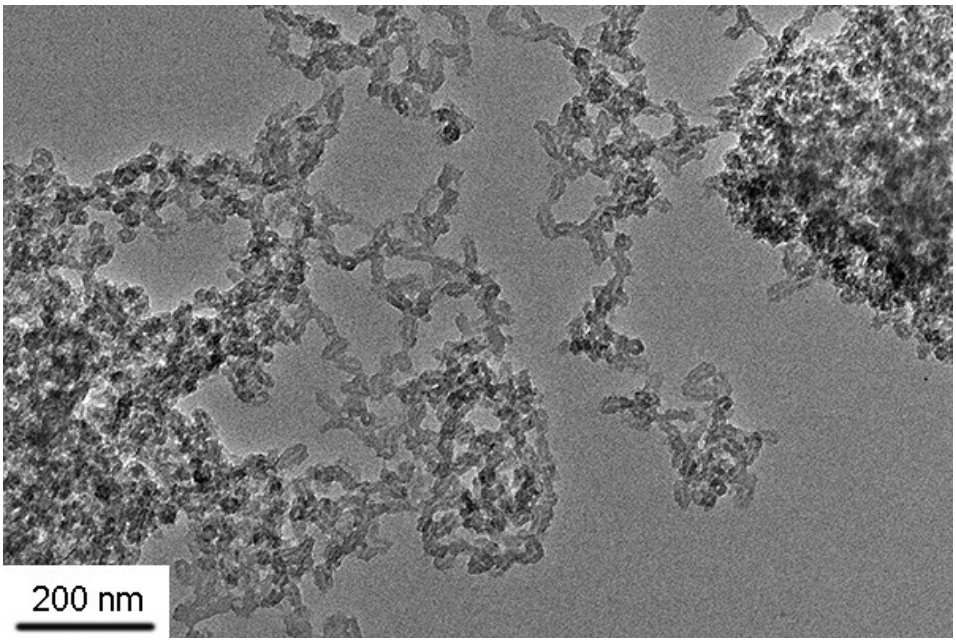


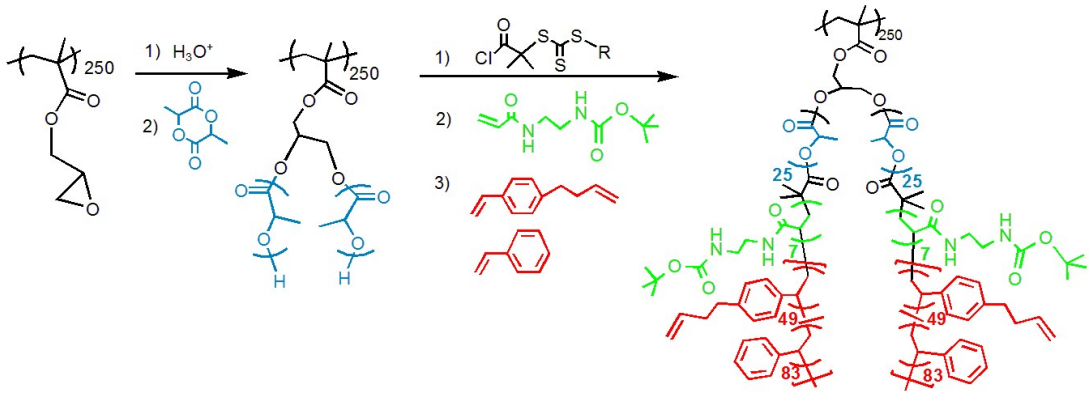
Figure S9.TEM image of the NH_2-MONNs after recycled.

Table S1. Element analysis of NH_2-MONNs (**1**) and the NH_2-OONNs (**2**).

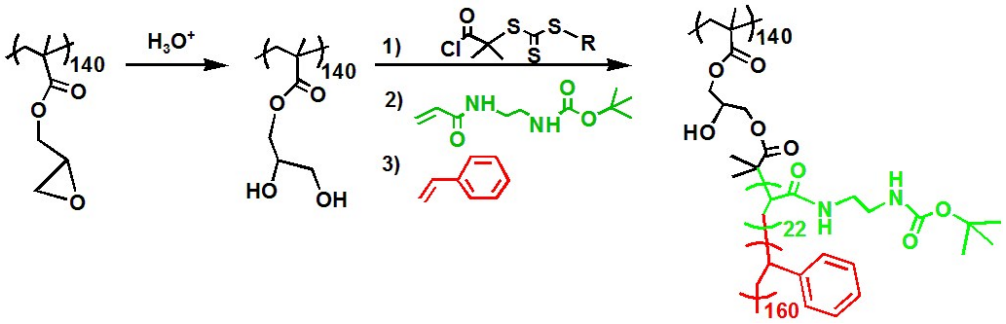
NO.	Wight [mg]	C/N Ratio	Content [%]	Peak Area
1	1.5110	151.7	N: 0.491	231
			C: 74.42	29402
			H: 7.225	8957
2	1.2980	116.6	N: 0.625	253
			C: 72.92	24752
			H: 7.307	7779

Table S2. Textural parameters of the NH_2-MONNs (**1**) and the NH_2-OONNs (**2**).

Materials	BET Surface Area (m^2/g)	Pore Volume (cm^3/g)	Micropore Volume	Mesopore/Macropore Volume
1	936	1.67	0.17	1.50
2	32	0.27	--	0.27



Scheme S1.Synthesis route of the NH_2-OONNs precursor.



Scheme S2. Synthesis route of the NH_2-bottlebrushes precursor.