## **Electronic Supplementary Information**

## Straightforward synthesis of multifunctional porous polymer

## nanomaterials for CO<sub>2</sub> capture and removal of contaminants

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Entry	Time	Polymer	$M_{n,SEC}^{c}$	$D^{c}$
	(h)	grafting <sup>b</sup> (%)	$(g mol^{-1})$	
P1	0.5	16	8900	1.28
P2	1	29	15900	1.27
P3	2	37	20400	1.25
P4	4	48	26300	1.23
P5	6	54	29700	1.25
P6	12	60	32900	1.24

**Table S1.** Reaction conditions and results of the kinetics study of SC-ATRP of GMA/VBC from MSN-Br in xylene at 60 °C.<sup>a</sup>

<sup>a</sup>Reaction Conditions:  $[GMA+VBC]_0/[MSN-Br]_0 = 200$ . <sup>b</sup>Determined from TGA. <sup>c</sup>Obtained from SEC measurements of the cleaved polymer samples.



Fig. S1. SEC traces of prepared MPGMAN-CH<sub>2</sub>Cl copolymers.