

Electronic Supplementary Information

**Facile access to template-shape replicated nitrogen-rich
mesoporous carbon nanospheres for highly efficient CO₂ capture
and contaminant removal**

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Table S1. Reaction conditions and results of the kinetics study of SC-ATRP of AN/VBC

Entry	Time (h)	Polymer grafting ^b (%)	$M_{n,SEC}^c$ (g mol ⁻¹)	D^c
P1	0.5	21	8600	1.25
P2	1	33	13300	1.23
P3	2	44	17800	1.24
P4	4	52	20900	1.21
P5	8	58	23400	1.18
P6	15	63	25200	1.17
P7	24	66	26400	1.18

from MSN-Br in xylene at 90 °C.^a

^aReaction Conditions: [AN+VBC]₀/[MSN-Br]₀ = 200. ^bDetermined from TGA. ^cObtained from SEC measurements of the cleaved polymer samples.

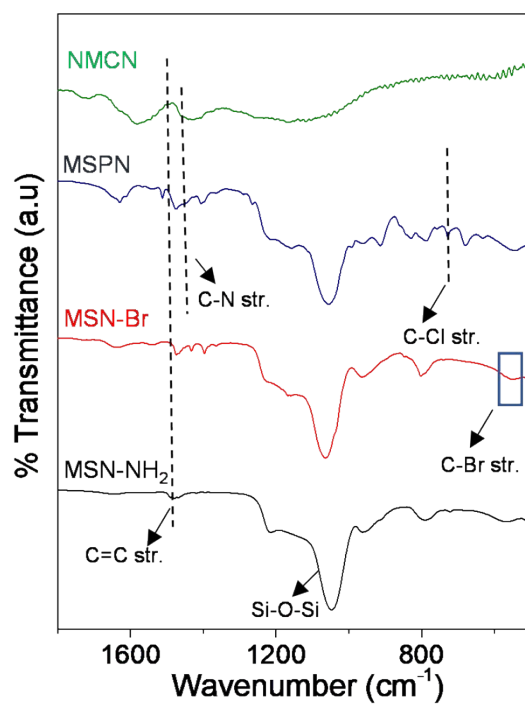


Fig. S1 Zoomed-in IR spectra of the obtained porous MSN-NH₂, MSN-Br, MSPAN-CH₂Cl, and NMCN nanomaterials.