Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A.

Supporting Information

Novel porous MgO sorbent fabricated through carbon-insertion

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Table 1. XPS data of carbonized magnesium salts.

Samples	Atomic Concentration/%			
	C1S	O1S	Mg1S	C/Mg
MA-1	34.8	40.1	25.1	1.4
MA-2	37.3	45.7	17.0	2.2
MA-3	43.6	44.5	11.9	3.7
MA-4	41.9	45.7	12.4	3.4
MA-5	44.8	44.4	10.8	4.1
MA-6	40.4	45.8	13.9	2.9
MN	37.7	47.4	14.9	2.5

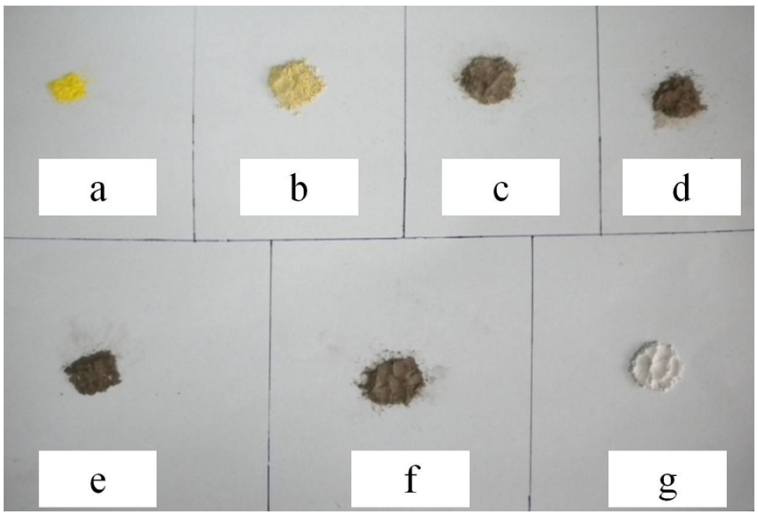

Fig. S1 Images of (a) MA-1, (b) MA-2, (c) MA-3, (d) MA-4, (e) MA-5, (f) MA-6 and (g) MN samples.

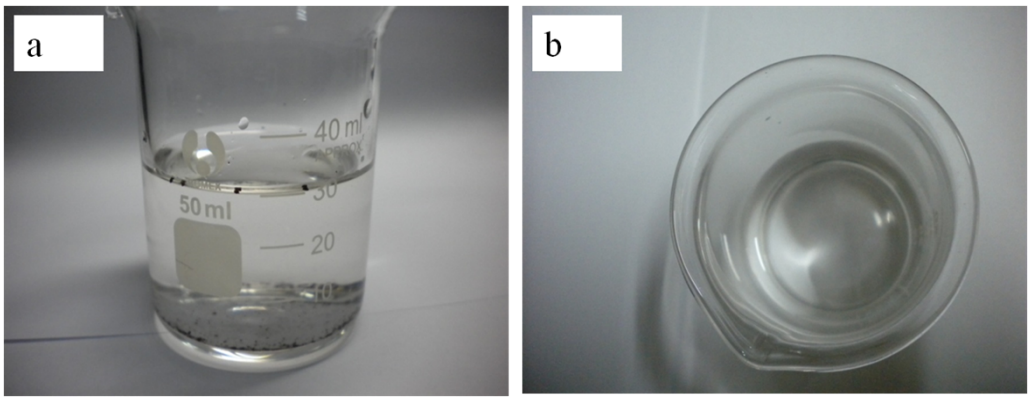

Fig. S2. Final appearances of (a) MA-5 and (b) MN dissolved into 0.02M HCl.

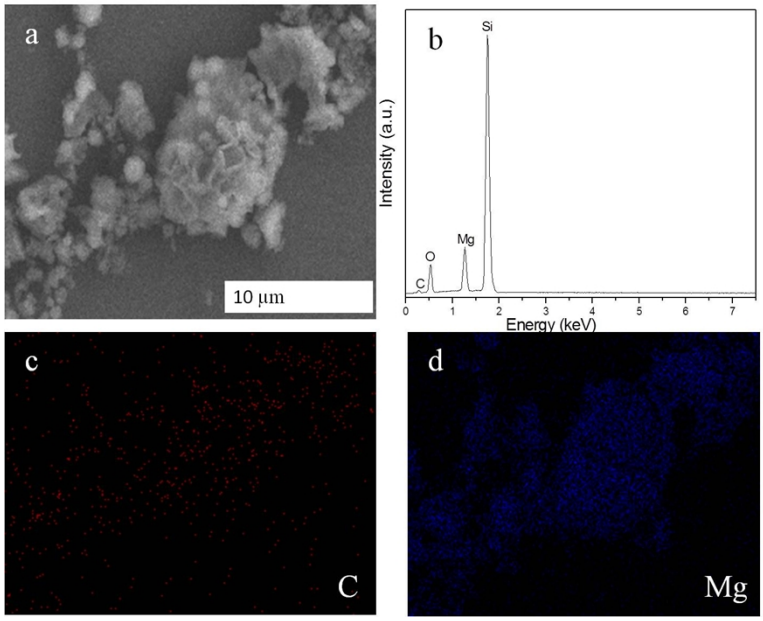

Fig. S3 (a) SEM images, (b) EDX spectrum, and (c, d) x-ray mapping of MA-1 sample, in which the magnification is 5000.

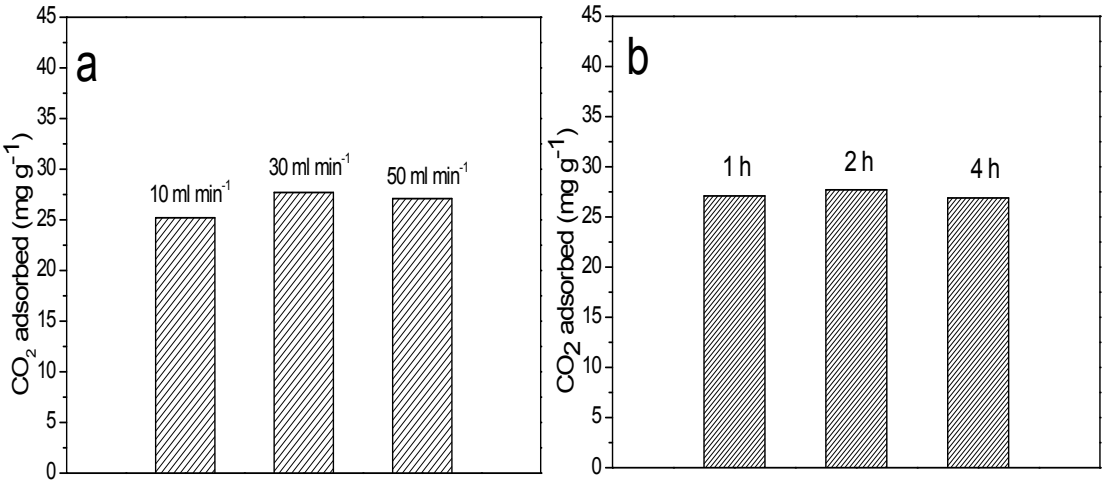

Fig. S4. Influences of N_2 flow (a) and carbonization time (b) on the CO_2 adsorption at 473 K by MA-5 composite.
(a) Carbonization time is 2 h. (b) N_2 flow is 30 ml min^{-1}.

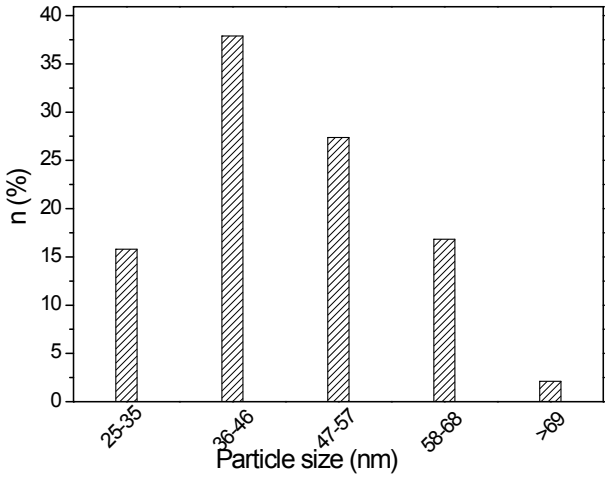

Fig. S5 The particle size distribution of MA-5-s sample.