

## Supplementary Material

### High U(VI) adsorption capacity by mesoporous Mg(OH)<sub>2</sub> deriving from MgO hydrolysis

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Table S1. Comparison of U(VI) sorption performance of different equilibrium concentration of uranium, pH = 6, t = 4 h, T = 298 K, V = 50 mL, HMMM dose = 0.138 mmol.

Initial U(VI) concentration (C <sub>0</sub> /mg L <sup>-1</sup> )	Equilibrium U(VI) concentration (C <sub>e</sub> /mg L <sup>-1</sup> )	Adsorption capacity (Q <sub>e</sub> /mg g <sup>-1</sup> )
10	0.72	58
20	0.87	119
30	0.96	181
50	1.13	305
100	1.35	616
200	1.64	1239
300	1.83	1863
400	1.96	2487
500	2.17	3111