

**Sacrificial template-directed synthesis of mesoporous  
manganese oxide architectures with superior performance  
for organic dye adsorption**

Lunhong Ai,\* Haitao Yue, and Jing Jiang

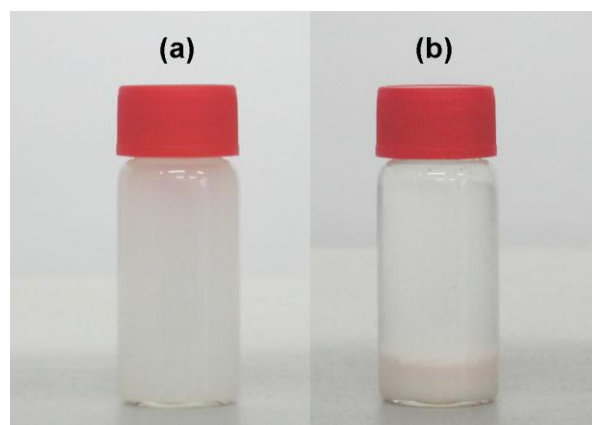
Chemical Synthesis and Pollution Control Key Laboratory of Sichuan Province, College of

Chemistry and Chemical Engineering, China West Normal University, Shida Road 1#,

Nanchong 637002, P.R.

\* Corresponding author. Tel.: +86-817-2568081; Fax: +86-817-2582029.

E-mail address: ah\_aihong@163.com



**Fig. S1** Natural settlement of the MgO architectures suspended in water for 10 min

**Table S1.** Kinetic parameters for the adsorption of CR on the MgO architectures

$C_0$ (mg L <sup>-1</sup> )	$q_{e,exp}$ (mg g <sup>-1</sup> )	Pseudo-first-order		Pseudo-second-order			
		$k_1$ (min <sup>-1</sup> )	$q_{e,cal}$ (mg g <sup>-1</sup> )	$R^2$	$k_2$ (g mg <sup>-1</sup> min <sup>-1</sup> )	$q_{e,cal}$ (mg g <sup>-1</sup> )	$R^2$
160	395.6	0.0684	11.36	0.9036	0.0188	396.8	1
200	492.2	0.0594	51.28	0.9728	0.0036	495.1	1
250	586.0	0.0221	67.94	0.9672	0.0011	595.2	0.9997

**Table S2.** Isotherm parameters for the adsorption of CR on the MgO architectures

Langmuir		Freundlich			
$b$ (L mg <sup>-1</sup> )	$q_m$ (mg g <sup>-1</sup> )	$R^2$	$K_f$	$n$	$R^2$
2.221	689.7	0.9954	353.8	6.706	0.8327