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## Preparation of magnesium silicate/carbon composite for adsorption of rhodamine B

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## **Exploratory experiment**

The composite without adding sodium acetate was prepared in the early exploring experiments. The adsorption result showed that the adsorption properties of this composite for rhodamine B improved only 6.41% than magnesium silicate. In other words, the improved effect is not obvious. The adsorption capacity significantly improved by adding sodium acetate into the raw materials.

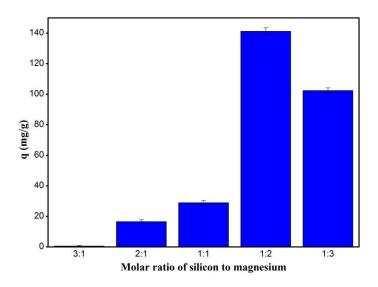


Fig. S1 Effects of Si/Mg molar ratio on the adsorption of RhB

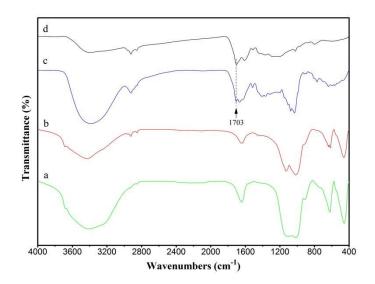


Fig. S2 FT-IR spectra of magnesium silicate (a), magnesium silicate added with sodium acetate (b), glucose hydrothermal carbon (c) and glucose hydrothermal carbon added with sodium acetate (d)