**Synthesis of mesoporous poly(melamin-formaldehyde) solid sorbent (mPMF)**

The synthesis procedure of mPMF is stated according to the studies conducted previously [1]. Briefly, melamin (3.0 mmol) and paraformaldehyde (5.4 mmol) were added into a Teflon container equipped with a magnetic stirrer, then anhydrous DMSO (3.36 mL) was added. The Teflon container was capped and placed into a steel bomb reactor. This system was heated to 120 °C in an oven. After 1h the reactor was carefully removed from the oven. The mixture was stirred vigorously to obtain homogenous mixture. The mixture was then heated to 170 °C for 72 h. After cooling to room temperature, the white solid product was washed with DMSO, acetone (3×), THF (3×) and CH2Cl2 three time. The resulting solid sorbent was dried under vacuum at 80 °C for 24h.

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1. Tan, M.X., Y. Zhang, and J.Y. Ying, *Mesoporous poly (melamine–formaldehyde) solid sorbent for carbon dioxide capture.* ChemSusChem, 2013. **6**(7): p. 1186-1190.