Synthesis of porous organic polymers from Melamine and Terepthalaldehyde for CO_2 adsorption

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CO_2, a major contributor to global warming, are captured and storaged in many ways. Among them, CO_2 adsorption is environmentally friendly and cost effective compared to other methods. In this field, Porous organic polymers (POPs) are noticeable to its propoerties such as high surface area, stability, porosity. In this work, Melamine-Terephthalaldehyde Polymer (MTP), a porous organic polymer, was synthesized by Schiff-base reaction in DMSO. MTP was characterizatied by BET, FT-IR, SEM, TEM, for surface area, reaction, morphology respectively. Subsequently, The CO_2 capacity of MTP was examined.