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Hexamethylene Tetramine-Assisted Hydrothermal Synthesis of Porous Magnesium oxide for High-Efficiency Removal of Phosphate in Aqueous Solution

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Highlights

- Porous MgO prepared by hexamethylene tetramine-assisted hydrothermal method.
 - HMT plays a key role during the formation of pore structure of MgO materials.
 - Magnesium hydrogen phosphate and magnesium phosphate were formed around MgO.
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ABSTRACT

Porous magnesium oxide as the adsorbent of phosphate was prepared by hexamethylene tetramine (HMT) assisted hydrothermal method. Various techniques were used to carefully characterize crystallinity structure, morphology, pore structure, and adsorption performance of the prepared MgO samples. The results show that the HMT plays a key role during the formation of pore structure of MgO materials. The

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