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Synthesis of Mesoporous Lanthanum Phosphate and Its Use as a Novel Sorbent

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摘要 Mesoporous lanthanum phosphate was synthesized by supramolecular self-assembly of cetyltrimethylammonium bromide and lanthanum nitrate following digestion in phosphoric acid. TGA-DTA, XRD and SEM were employed to study the uncalcined and calcined materials. Sorption behavior of Cr(III), Mn(II), Fe(III), Co(II), Ni(II), Cu(II), Zn(II), Cd(II), Ba(II), Hg(II) and Pb(II) cations was studied on such materials in water, $3 \text{ mol}\cdot\text{L}^{-1}$ ammonia, $0.01 \text{ mol}\cdot\text{L}^{-1}$ potassium ferrocyanide and $0.01 \text{ mol}\cdot\text{L}^{-1}$ potassium ferricyanide solutions.

关键词 [mesoporous](#) [surfactant](#) [lanthanum phosphate](#) [metal cation sorption](#)

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Key words [mesoporous](#) [surfactant](#) [lanthanum phosphate](#) [metal cation sorption](#)

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