

Synthesis of mesoporous aluminosilicates from commercially available ferrierite

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We demonstrate a synthesis method for ordered mesoporous materials constructed with ferrierite framework. The synthesis method involves combination of top-down and bottom-up approaches using commercially available ferrierite and cationic surfactant as the framework source and the structure directing agent respectively. The mesoporous materials from ferrierite is produced by disassembling ferrierite into unit structure in the presence of alkali solution, adding a surfactant as a templating material and performing hydrothermal synthesis. The effect of alkali solution in preparation of the mesoporous materials from ferrierite on the characteristics of catalyst was investigated.