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基于固相转化机理合成五元环沸石的新技术

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摘要 A novel technology of preparing zeolites based on solid-solid mass transformation mechanism
is developed for the first time. By employing this technology, three different types of highly crystallized pentasil zeolites,ZSM-35 (FER-type), Silicalite-1(MFI-type) and Mordenite(MOR-type), are successfully synthesized in the solid system. In terms of commercial production, the technology·could simplify synthesis procedure and make the continuous production of zeolites possible, so as to improve the productivity. Additionally, it is environmentally friendly because the crystallization occurs in solid phase where there exists no pollution caused by waste liquid. Therefore, this technique provides us with a new industrial process for the clean and continuous production of zeolites.The characteristics in synthesis chemistry and the crystallization mechanism involved in the technology are also discussed.

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A Novel Technology for Synthesizing Pentasil Zeolites Based on Solid-Solid Mass Transformation Mechanism

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Key words pentasil zeolites; synthesis; solid phase transformation; template

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