

Abstract

The present invention relates to a SAPO-34 molecular sieve having both
5 micropores and mesopores and synthesis method thereof. The mesopore
diameter in the molecular sieve is in a range of 2-10 nm and the mesopore
volume thereof is 0.03-0.3 cm³/g. Triethylamine is used as a template agent and
the pore size modifiers are added to the synthesis gel at the same time in the
synthesis process, thereby the prepared molecular sieve crystals have mesopore
10 distribution besides micropores. The SAPO-34 molecular sieve synthesized in
the present invention can be used as catalysts for conversion of
oxygen-containing compounds to lower olefins.



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