

Abstract

The present invention discloses a SCM-33 molecular sieve, and the preparation method therefor and the application thereof. The SCM-33 molecular sieve has a schematic chemical composition as shown in the formula " $\text{SiO}_2 \cdot 1/x \text{ XO}_{1.5} \cdot m \text{ MO}_{0.5}$ ", wherein X is a framework trivalent element, the Si/X molar ratio x is ≥ 5 , M is a framework equilibrium cation, and the M/Si molar ratio is $0 < m \leq 1$. The molecular sieve is a novel molecular sieve with RTE topology and the molecular sieve requires short preparation time, involves a low synthesis cost and can be used as adsorbent or catalyst.

Fig. 2