

Abstract

The present invention concerns a SAPO-34 molecular sieve and method for preparing the same, whose chemical composition in the anhydrous state is expressed as: $m\text{DIPA} \cdot (\text{Si}_x\text{Al}_y\text{P}_z)\text{O}_2$, wherein, DIPA is diisopropylamine existing in cages and pore channels of said molecular sieve, wherein m is the molar number of diisopropylamine per one mole of $(\text{Si}_x\text{Al}_y\text{P}_z)\text{O}_2$, and m is from 0.03 to 0.25; x , y , z respectively represents the molar number of Si, Al, P, and x is from 0.01 to 0.30, and y is from 0.40 to 0.60, and z is from 0.25 to 0.49, and $x + y + z = 1$. The SAPO-34 molecular sieve can be used as catalysts for acid-catalyzed reaction or oxygenate to olefins reaction.

(No figure to accompany abstract)