

ABSTRACT

The present application discloses a catalyst, the catalyst contains a molecular sieve, there is at least one-dimension 8-membered ring channel in the molecular sieve structure, the diameter of a diffusible substance in the direction of the 8-membered ring channel is no less than 2.0 Å, the diameter of a substance that can be accommodated in the molecular sieve structure is no more than 6Å; the catalyst is used for a methanol and/or dimethyl ether to propylene reaction, comprising contacting methanol and/or dimethyl ether with a methanol-to-propylene catalyst to obtain propylene.