

USE OF MODIFIED 5-7 Å PORE MOLECULAR
SIEVES FOR ISOMERIZATION OF HYDROCARBONS

5. Abstract Of The Disclosure

A process is disclosed for dewaxing a hydrocarbon feed to produce a dewaxed lube oil. The feed includes straight chain and slightly branched chain paraffins having 10 or more carbon atoms. In the process the feed is contacted under isomerization conditions with an intermediate pore size molecular sieve having a crystallite size of no more than about 0.5 μ and pores with a minimum diameter of at least 4.8Å and with a maximum diameter of 7.1Å or less.

10 The catalyst has sufficient acidity so that 0.5 g thereof when positioned in a tube reactor converts at least 50% of hexadecane at 370°C, a pressure of 1200 psig, a hydrogen flow of 160 ml/min, and a feed rate of 1 ml/hr. It also exhibits 40 or greater

15 isomerization selectivity when used under conditions leading to 96% conversion of hexadecane to other chemicals. The catalyst includes at least one Group VIII metal. The contacting is carried out at a pressure from about 15 psig to about 3000 psig.

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