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(54) Title: HYDROISOMERIZATION CATALYSTS

(57) Abstract: A hydroisomerization catalyst comprising a molecular sieve belonging to the ZSM-48 family of zeolites; an inorganic oxide support; one or more first modifiers selected from Groups 8 to 10; and one or more second modifiers selected from the group consisting of calcium (Ca), chromium (Cr), magnesium (Mg), lanthanum (La), barium (Ba), praseodymium (Pr), strontium (Sr), potassium (K) and neodymium (Nd). The molecular sieve comprises: a silicon oxide to aluminum oxide mole ratio of about 40 to about 220; at least about 70% polytype 6 of the total ZSM-48-type material present in the product; and an additional EUO-type molecular sieve phase in an amount of between about 0 and about 7.0 percent by weight of the total product. The molecular sieve has a morphology characterized as polycrystalline aggregates comprising crystallites collectively having an average aspect ratio of between about 1 and about 8.



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