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**Cobalt fischer tropsch catalysts - incorporating promoter and
 combined with molecular sieve**
 C89-167552

A cobalt Fischer Tropsch catalyst is supported by an ultrahydrophobic molecular sieve in combination with an effective amt. of a promoter which may be Mn oxide or a mixt. of Mn and Zr oxides.

USES/ADVANTAGES

The catalyst exhibits improved stability, catalyst life, and prod. selectivity (lower methane prodn., higher C5+ yield and olefin prodn.).

PREFERRED EMBODIMENTS

The ultrahydrophobic molecular sieve is:
 (a) an acid extracted LZ-10 molecular sieve, or
 (b) a steam treated and acid extracted LZ-210 molecular sieve.

EXAMPLE

Using 1:1 H₂:CO syngas, a Mn oxide promoted catalyst

E(10-J2C3, 10-J2D, 31-P2C, 35-L, 35-V) H(4-E5, 4-F2E) J(4-E4)
 N(1-C1, 2-B1, 3-B, 3-E)

performed better than a non-promoted catalyst at 240 and 260°C in that:

- (i) conversion activity was improved by over 10 %,
- (ii) methane prodn. was halved,
- (iii) C5+ yield was increased significantly,
- (iv) the olefin content of the prod. was increased,
- (v) there was a ten fold decrease in the percent syngas conversion loss per hour, implying an increase in catalyst life. (5pp2042CGDwgNo0/0).