

**CATALYSTS, PREPARATION OF SUCH CATALYSTS, METHODS OF USING
SUCH CATALYSTS, PRODUCTS OBTAINED IN SUCH METHODS AND USES OF
PRODUCTS OBTAINED**

ABSTRACT

A catalyst that includes one or more metals from Column 6 of the Periodic Table and/or one or more compounds of one or more metals from Column 6 of the Periodic Table and a support. The support comprises from 0.01 grams to 0.2 gram of silica and from 0.80 grams to 0.99 grams of alumina per gram of support. The catalyst has a surface area of at least 315 m²/g, a pore size distribution with a median pore diameter of at most 100 Å, and at least 80% of its pore volume in pores having a pore diameter of at most 300 Å. The catalyst exhibits one or more peaks between 35 degrees and 70 degrees, and at least one of the peaks has a base width of at least 10 degrees, as determined by x-ray diffraction at 2-theta. Methods of preparation of such catalyst are described herein. Methods of contacting a hydrocarbon feed with hydrogen in the presence of such catalyst to produce a crude product. Uses of crude products obtained. The crude product composition is also described herein.

Fig. 1