

**CATALYSTS HAVING SELECTED PORE SIZE DISTRIBUTIONS, METHOD OF MAKING
SUCH CATALYSTS, METHODS OF PRODUCING A CRUDE PRODUCT, PRODUCTS
OBTAINED FROM SUCH METHODS, AND USES OF PRODUCTS OBTAINED**

ABSTRACT

A catalyst and a method of preparation of said catalyst is described herein. The catalyst includes one or more metals from Columns 6-10 of the Periodic Table and/or one or more compounds of one or more metals from Columns 6-10 of the Periodic Table, a pore size distribution with a median pore diameter ranging from 105 Å to 150 Å, with 60% of the total number of pores in the pore size distribution having a pore diameter within 60 Å of the median pore diameter, with at least 50% of its pore volume in pores having a pore diameter of at most 600 Å, and between 5% and 25% of its pore volume in pores having a pore diameter between 1000 Å and 5000 Å. Methods of producing said catalyst are described herein. Crude products and products made from said crude products are described herein.

Fig. 1