Abstract

The development of new catalysts for normal alkanes isomerization reveals a big importance. Three series of catalysts were prepared by using sol-gel method, using different metal concentration and in two different pH (acid and basic).The first series contains molybdenum, the second contains tungsten and the third contains the two metals (molybdenum and tungsten).The catalysts were characterized by several techniques; the obtained results show that the catalysts prepared in basic pH have a surfaces areas and porous volumes higher than those prepared in acid pH. In order to evaluate the catalytic performances of prepared catalysts, we carried out the catalytic tests with light naphtha (C_5, C_6) isomerization. The obtained results show that the best conversions are obtained with catalysts prepared into pH basic. The octane numbers of the obtained products (isomerate) are high compared to naphtha. The addition of the obtained products (isomerate) into the pool gasoline allows on the one hand, to obtain gasolines with high octane numbers which respect the environmental standards, and on the other hand, the possibility of developing the light fractions (C_5 - C_6) resulting from the crude oil distillation unit and condensed split distillation