

~~Figure 2 shows~~An SEM image of the Pt/mordenite zeolite catalyst ~~the SEM micrography.~~  
~~The image is shown in Figure 2 and~~ indicates ~~that~~ the catalyst has a homogeneous morphology. The surface area ~~is~~plays a key ~~role~~ in the ~~catalyst~~catalytic activity. ~~Higher~~High surface area improves the ~~reactant~~-adsorption- ~~of reactants.~~ The ~~catalysts~~-surface area ~~of the catalyst~~ was measured by BET ~~-surface analysis.~~ The surface area of Pt/~~mordneite~~mordenite zeolites ~~were~~was 296.69 m<sup>2</sup>/gmg. The ~~XRDs~~XRD pattern of Pt/mordenite zeolite (Figure 3) exhibits the most intense diffraction peaks at  $2\theta = 6-30^\circ$ , ~~and it thus confirmed-~~ $30^\circ$ ; the MOR structure of zeolite ~~as the MOR as well as~~and its ~~good~~ crystalline nature ~~being good.~~ ~~are thus confirmed.~~

**Comment [A1]:** The subject-verb agreement requires the use of singular past tense "was" here since surface area is singular. Please note that "were" is a plural conjugation.

**Comment [A2]:** Ranges are presented using an en dash, not a hyphen.

The ~~hydroisomerization~~hydroisomerization of pure n-pentane and n-pentane in a binary mixture of pentane isomers was performed by the Pt/mordenite catalyst ~~for~~under a wide ~~ranges~~range of experimental conditions. The ~~hydrological~~-hydro-conversion products ~~comprise~~ of both isomerization and ~~ereaking~~cracking products. ~~Hence the~~The following subsections ~~tell~~-cover how the reaction parameters ~~effects~~-withaffect the catalytic performance of pure n-pentane as ~~the feed~~-are, which is demonstrated by catalytic activity and isomerization selectivity. ~~after this~~Then, the isomerization of ~~npentane~~n-pentane in the ~~bi~~binary mixture is discussed.

**Comment [A3]:** The proper use for "consist" is "to consist of" whereas for "comprise" it is just "comprise(s)." For example, "the soups comprise vegetables."

Figure 4 shows the conversion of ~~npentane~~n-pentane as a function of reaction temperature. The ~~tests~~reactions were performed ~~inside~~in an H<sub>2</sub> ~~environment~~ at temperatures ranging from 150 -°C to 350 °C ~~and~~at atmosphere ~~pressures.~~It clearly shows that the~~pressure.~~ The catalyst ~~showed a high catalysing activity for~~is seen to strongly catalyze the isomerization of ~~npentene~~n-pentene, particularly in the temperature ~~ranging in~~range of 220- °C -350 °-C. Because of the low activity of the catalyst and the low reactivity of n-pentane, the conversion of n-pentane is negligible ~~from~~at temperatures below 180 °C. By increasing the temperature ~~at~~from 180 °C to 220 °C, the conversion of n-pentane ~~rose~~increased greatly; however, a ~~further increase in~~increasing the temperature ~~slowly rises~~further results in a ~~slow~~ conversion. This ~~can~~may be caused by an ~~increasing~~increase in the number of sites ~~which~~that can be activated for the reaction when the temperatures ~~increases~~increase to be in the range ~~from~~of 180 -°C-220 °C; but, the ~~rate of~~conversion ~~increase~~-declining-rate begins to decline for ~~increasing temperature~~ because of thermodynamic ~~restriction~~restrictions at ~~bigger~~high temperature. In other words, ~~an~~-increasing ~~the~~ temperature always ~~means~~increaseing-results

**Comment [A4]:** Typically n-pentane is written with a hyphen. Also, since you used a hyphen earlier, the notation or spelling should be the same throughout the document.

~~in a higher~~ reaction rate. ~~Thus at~~At low ~~temperatures~~temperature, the actual conversion will be far below the equilibrium conversion because ~~of~~ low reaction rate. ~~On the contrary~~In ~~contrast~~, at higher ~~temperatures~~temperature, the equilibrium conversion will ~~be more~~ ~~easy~~easier due to ~~a~~the high reaction rate.

SAMPLE