

THESIS INFORMATION

Title: **STUDY THE ISOMERIZATION OF n-PENTANE, n-HEXANE FOR HIGH OCTANE GASOLINE OVER BI-FUNCTIONAL CATALYST**

Major: **Refining and Petrochemical Technology**

Major code: **62527510**

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Advisor: **Prof. Dr. Sc. Luu Cam Loc**

University: **University of Technology, Vietnam National University – Ho Chi Minh City**

The two major objectives of the thesis can be listed as followed:

1. Establishing the palladium carried on HZSM-5 catalyst in order to replace the platinum one which has been using for isomerization of light n-paraffins.
2. Accomplishing the theory basis of n-hexane isomerization by building up the kinetic equation and proposing reaction mechanism.

The main contributions of the thesis are:

1. Finding out successfully the palladium carried on HZSM-5 catalyst for the isomerization of light n-paraffins.
2. Specifying the nature of active sites in bi-functional catalyst.
3. Confirming the role of additive metal to characteristic, activity, and stability of catalysts.
4. Discovering the relationship between operating pressure and activity, stability of catalyst.
5. Proposing the reaction kinetic equation to be used further for process calculations.
6. Proposing reaction mechanism in order to accomplish the theory basis of n-hexane isomerization.

Advisor

PhD. Student

Prof. Dr. Sc. Luu Cam Loc

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