

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

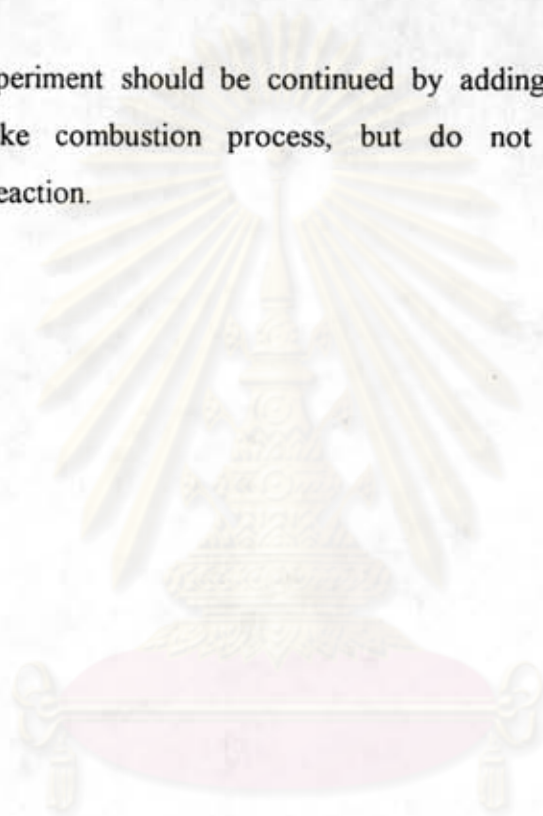
The conclusions emerged from his research are the following:

1. The observed combustion temperature of coke catalyst depends upon properties of stable dehydrogenated property and location where it deposits.
2. Sample weight affects significantly temperature-programmed oxidation profiles for coked catalyst and coke sample from catalyst digestion in the aspect of its pattern and the position of the peaks.
3. Metal and alumina support play an important role on coke combustion. Pt may catalyze the oxidation process and the alumina support probably promote the coke combustion via its high surface area and porosity properties.
4. Harder coke, referred to longer operation on propane dehydrogenation and more stable dehydrogenated species, will cause the higher combustion temperature at high temperature region.
5. Coke accumulation on propane dehydrogenation catalyst causes the pore blockage or pore plugging.
6. Carbon containing on coked catalyst for TPO technique are important for coke characterization.

Recommendations

1. Composition of coke on dehydrogenation catalysts should be characterized and try to distinguish between coke on metallic sites and on acidic sites.

2. The experiment should be continued by adding the other metals which catalyzes the coke combustion process, but do not significantly affect the dehydrogenation reaction.



ศูนย์วิทยทรัพยากร
จุฬาลงกรณ์มหาวิทยาลัย