CHAPTER 6

CONCLUSION

The mathematical models of the catalytic reforming processes are developed for the prediction of steady state behavior of these processes. This study is limited to an isothermal fixed-bed reactor with Platinum-Rhenium on alumina catalyst and operating condition temperature range from 325-505 °C, total pressure range from 1-15 bar. The feedstocks are C_6 or C_7 hydrocarbons or their mixture. The rate equations are obtained from experimental data by using Hougen-Watson rate equations.

From model fitting of the three studied models found that model 1 is the best fit when compared to literature data.

It is coucluded that the new model can predict the steady state behavior of the catalytic reforming processes. For further development, the modelling for C_8 to C_{11} hydrocarbons can be developed by determining a set of rate equation (based on Hougen-Watson rate equation) and parameter estimation.