ACKNOWLEDGEMENTS

First of all, I would like to thank Assoc. Prof. Virote Boonamnuayvitaya, for his advice and in valuable idea. I am very thankful to Assoc. Prof. Navadol Laosiripojana for help on the reforming section. I am also grateful to the administrative help received from the Chemical Engineering Department. I also would like to thank Miss La-eid Pengsopar and Mr. Ounsa Nonphala for their helps and instruction on experiment analysis.

Finally, I would like to thank the Office of the National Research Council of Thailand for supporting by grant fund.