

ACKNOWLEDGEMENTS

The success of this thesis can be attributed to the extensive support and assistance from my major advisor, Assoc. Prof. Dr. Paitip Thiravetyan. I deeply thank for their valuable advises and guidance during my study.

My appreciation is also expressed to Assoc. Prof. Dr. Chalermraj Wantawin and Dr. Wipawan Siangdung for valuable discussion and suggestion. Special thanks are also expressed to Assoc. Prof. Dr. Lee Newman the external examiner for her comments and useful suggestion, which significantly improved the quality of this research.

I would like to grateful thanks to the Commission on Higher Education, Thailand for research grant, and to express their appreciation to the wastewater treatment plant of Tungkru District, Bangkok, Thailand for domestic wastewater support in this study. I am grateful to all the lecturers, staff, my friends at the School of Bioresources and Technology, King Mongkut's University of Technology Thonburi for their valuable advices and their kind supports.

Finally, I am grateful to my beloved family for their support, entirely care and good understanding throughout my study.