

ACKNOWLEDGEMENTS

I am grateful to the Royal Thai Government for the spiritual support and also grateful to Mitt-phu-wieng Industry, Khon Kaen, Thailand for providing sugarcane baggase during the whole project.

I extend my sincere thanks to my advisor, Dr. Paiboon Danvirutai and my co-advisor Asst. Prof. Dr. Vichai Leelavatchalamas for their helpful, valuable advice, encouragement and support throughout this study.

I would like to express my deepest gratitude and appreciation to Professor Ian F. Connerton for his vital advice, encouragement, constant support and his hospitality during the whole period time in Sutton Bonington Campus, also for the patience to understand and correct my poor English.

I am thankful to the viva committees, Assoc. Prof. Dr. Pattana Laopaiboon, Dr. Kanya Jirajaroenrat and Dr. Sumonwan Chumchuere, for their expert and valuable suggestions.

I wish to thanks the very helpful and co-operative staffs of the Food Sciences Division, University of Nottingham. I, especially, would like to thanks Niki Cumming, Velerie Cerpin, Babs Perkin and Dave Flower for their expert and technical assistance.

I would like to thank all of staffs in Biotechnology Department KKU, for their help and their suggestions in my work.

Also, I wish to thanks all of staffs in Biotechnology Department MSU, for their supports my laboratory works.

At last, I wish to thank my devoted father, mother and my family for their encouragement my education since the beginning.

Monrodee Chaowarat