ACKNOWLEDGEMENT

At the outset, I thank The Almighty for his abundant blessings showered on me to complete this research work successfully.

I am indebted to Dr. R. Kasturi Bai, Professor and Head (Retired), Department of Bio-Energy, School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai for suggesting this problem. Her understanding and personal guidance have provided a good basis for the present thesis. Especially the strict and extensive comments and many discussions and the interactions with her had a direct impact on the final form and quality of this thesis.

I render my sincere thanks and gratitude to Dr. K. Muthuchelian, Professor, Head and Chairperson, Department of Bio-Energy, School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai for his kindness and valuable help throughout this study.

I am gratefully indebted to Dr. Samuel Paul Raj, Senior Professor and Head, Department of Natural Resources, School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai for his constant encouragement.

I wish to place on record, the timely help and support received from Dr. A.K. Kumaraguru, Senior Professor and Head, Department of Environment, School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai.

I am also thankful to Dr. A. Sundaram, Senior Professor and Head, Department of Solar Energy, School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai.

Thanks are due to Dr. Anandavalli Mahadevan, Senior Professor and Head, Department of Future Studies, School of Energy, Environment and Natural
Resources, Madurai Kamaraj University, Madurai for all the help rendered during the study period.

I express my profound thanks to Dr. P. Gunasekaran, Senior Professor and chairperson, Department of Genetics, Centre for Excellence in Genomic Sciences, School of Biological Sciences, Madurai Kamaraj University, Madurai for his valuable suggestions.

I owe my sincere thanks to Dr. S. Sivakolunthu, Professor, Department of Inorganic chemistry, School of Chemistry, Madurai Kamaraj University, Madurai for all the help rendered to carry out the work successfully.

I sincerely thank UGC, Government of India, New Delhi for the financial assistance to carry out this study successfully under the X plan period. (F.XTFTNMS 118/FIP-X Plan of June 2005).

I am thankful to Institute of Microbial Technology (IMTECH), Chandigarh for Kluyveromyces marxianus MTCC 1388 and Saccharomyces cerevisiae MTCC 170 and National Dairy Research Institute (NDRI), Karnal for Aspergillus niger NCDC 55 and Lactobacillus bulgaricus NCDC 068.

I am grateful to Aavin, Tirunelveli and Aavin, Madurai for providing dairy effluents for the research work.

I am very grateful to Dr. A. Prema, then Principal and Secretary, Sri Parasakthi College for Women, Courtallam, for her kindness in permitting me to avail FDP, under UGC X plan. I wish to record my sincere thanks for her constant encouragement and support.

Special thanks are due Dr. K. Meenakumari and Dr. V. Sasikala, the former Principals of Sri Parasakthi College for Women, Courtallam and the incumbent Dr. C. Rajeswari.
I wish to express my sense of gratitude to Mr. K. Mohan, Ms. R. Thamarai Selvi, Ms. P.A. Jayashree and all non teaching staff of School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai for their help during the course of this study.

I thank Dr. K. VinothKumar, Dr. A. Ramalingam, Dr. A. Saravanakumar, Mr. S. Suresh, Mr. Tennyson Daniel and Mr. K. Sivaramasundaram, Research Scholars, School of Energy Sciences Madurai Kamaraj University, Madurai for their timely help.

I record my heart felt thanks to Dr. V. Senthilkumar, Department of Genetics, Centre for Excellence in Genomic Sciences, School of Biological Sciences, Madurai Kamaraj University, Madurai for his technical expertise.

I express my sincere thanks to my friend Ms. S. Mariammal, Associate Professor in Dairy Science, Sri Parasakthi College for Women, Courtallam, for her co-operation. My thanks are due to Dr. G. Gitanjali, Dr. T. Karuppayee, Mr. M. Dharmaraj and Mr. R. Kumaresan of I.C.A.R Department of Sri Parasakthi College for Women, Courtallam, for their help. I am thankful to Ms. S. Johnsirani, Lecturer (Part-time) of the Department of Dairy Science, Sri Parasakthi College for Women, Courtallam for the timely help.

I thank Ms. M. Savitha for laboratory assistance and all the other non-teaching staff of School of Energy Sciences.

I record my gratitude to Dr. N. Muthiah, Former Dean, College Development Council, Madurai Kamaraj University, Madurai.

(P. KALYANI)