ACKNOWLEDGEMENTS

The research and writing of this doctoral thesis has been a thoroughly absorbing process. I mean this in the sense that, I have had the good fortune to spend three years totally immersed, day-to-day, in the questions examined by this thesis. I also mean this in the sense that, this thesis has absorbed fragments of ideas. So, in ensuring that credit is given where it is due, the acknowledgements and thanks enumerated here not only go to those who have aided me in under academic capacity, but also to those who have helped with their support, friendship and general discussions.

This thesis arose in part out of years of research that has been done since I came to Dr. K.M. Mahadevan's research circle. It is a pleasure to convey my gratitude to them all in my humble acknowledgment.

I would like to record my gratitude to Dr. K. M. Mahadevan for his supervision, advice, and guidance from the very early stage of this research as well as giving me extraordinary insights throughout the work. Above all and the most needed, he provided me unflinching encouragement and support in various ways. I have been benefited by advice and guidance from Dr. K.M. Mahadevan who bestowed his timely assistance even for answering some of my unintelligent questions. His truly scientist intuition has made him as a constant oasis of ideas and passions in science, which exceptionally inspire and enrich my growth as a student, a researcher and human being want to be. I am indebted to him more than he excepts.

I would like to thank Prof. B.S. Sherigara, Honorable Vice Chancellor, Professor of Industrial Chemistry, Kuvempu University, for constant support during my research work.

It is my pleasant duties to express my grateful thanks to Prof. J. Keshavayya, Chairman, Department of Chemistry, Kuvempu University, for his kind cooperation during my research work.

I am grateful to my teachers Department of Chemistry and Industrial Chemistry, Kuvempu University, Prof. P. Vasudeva Nayak, Prof. V.P. Vaidya, Prof. T.V. Venkatesha, Dr. Y. Arthoba Naik, Dr. K. Vasantha Kumar Pai, Dr. H.S.
Bhojya Naik, Dr. H.M. Vagdevi, Dr. K. Venugopala Reddy, Dr. Yadav Bodke and Dr. B.E. Kumara Swamy.

I would also like to thank all of my research colleagues and friends of Chemistry and Industrial Chemistry Departments of Kuvempu University, Mr. M.N.K. Harish, Mr. Mr. H.R. Mallikarjuna, Dr. M.N. Kumarasamy, Dr. G.K. Nagaraj, Dr. B.P. Nandeshwarappa, Dr. D.B. Aruna Kumar, Dr. B.M. Kiran, Dr. Prakash, Dr. Y.S. Ravikumar, Mr. T.H. Suresh Kumara, Mr. Sudhakar, Mr. Mahesh Goudar, Mr. Shivanna Goudar, Mr. S. Ramesh, Mr. Prabhakara Verma, Mr. Vijay Kumar, Mr. Musturappa, Mr. G. Rajesh, Mr. B.M. Praveena, Mr. H.N. Harishkumara, Mr. B. Basavaraju, Mr. M.C. Prabhakar, Mr. Chandra Shekhar and Mr. Chethana, Mr.H.B. Muralidhara, Dr. S. Shivakumar, Mr.U. Manohara, Dr. D. Ramesh, Mr. H. Rajashekhara.

I am very much grateful to Dr. V. Hulikal, Bioorganics and Applied Materials Ltd Bangalore, and Prof. K. M. Hosamani, Department of Chemistry, Karnataka University, Dharwad.

I express my sincere thanks to my friendsDr. Shankar, Dr. Sunil Kumar, Mr. Garudachari, Mr. Anand, Mr. Sanand Ganesha, Mr. Gururaj, Mr Ananth Krishna, Mr. Harish, Mr. Nandeesh, and Mr. Balraj from Hosakote.

Where would I be without my family? My parents deserve special mention for their inseparable support and prayers. My father, Sri. S. Aswatha Narayana, and My Mother, Smt. R. Sheshamma, who put the fundamental my learning character, showing me the joy of intellectual pursuit ever since I was a child. Although they may not have shared in my foundness for science, but supported me in everything I have done. I am eternally greatful.

Words fail me to express my appreciation to my sisters Miss A. Sujatha, Miss A. Sumitha, Miss A. Savitha, Miss A. Kavitha, whose dedication, love, moral support and persistent confidence in me, has taken the load off my shoulders. I am ever grateful to my brother in laws, Mr. V. S. Raju Reddy, Mr. Narayana Swamy, Mr. Nagraj, Mr. Shashidhara for their patience, constant encouragement and help.
I express my thanks to the non-teaching staff of Chemistry and Industrial Chemistry Departments, Kuvempu University for their kind co-operation.

Finally, I place on record my thanks to S.G.S computers and Ganga book binders for their neat work in preparing this thesis.

Srinivasa A.