ACKNOWLEDGEMENT

I would like to sincerely thank everybody who has, in one way or the other, contributed in the successful completion of my thesis. I wouldn’t be doing justice by merely naming everybody who helped me but at the same time it will be too difficult for me to express my sincere thanks in the form of words, I will nonetheless try to make a sincere effort ...

I wish to express my heartfelt gratitude towards my research supervisor Dr. A. Sudalai, whose knowledge and vast experience has inspired me at every stage of my tenure and helped me to achieve this target. His suggestions, criticisms and constant encouragement helped me immensely to grow as a chemist. His constant effort to instill us with several most essential habits, like weekly seminars and group meetings, weekly reports and daily planning, made me confident to start an independent scientific career. My sincere regards and reverence are for him, forever.

I thank Dr. B. D. Kulkarni sir and Dr. V. V. Ranade, Deputy Director and Head, CE-PD division, for his help and support. My special thanks go to Dr. S. Gurunath for his constant encouragement and moral support. I also want to thank Dr. Mulla, Dr. Srinivas Reddy, Dr. Ramana and Dr. Srinivas Hotha for their help and encouragement. It’s my privilege to thank the Director, NCL for giving me this opportunity and providing all necessary infrastructure and facilities.

I am immensely thankful to my seniors Drs. Abhimanyu, Siva, Srinu, Shriram, Ramesh, Arun, Victor, Emmanuelvel, Shyla, Pandu, Tanveer for useful training in the initial phase of my career. I would like thank all my school teachers and also my MSc teachers from School of Chemical Sciences especially Prof. H. Suryaprakah Rao for teaching me discipline in life along with science.

I thank NMR group and elemental analysis group for their help in obtaining the analytical data. I am very thankful to Mr. V. B. Chavan for his help in the HPLC analysis. I thank library staff, chemical stores & purchase staff and glass blowing section staff of NCL for their cooperation. I thank PD office staff Mr. Bhosale, Mrs. Puranik, Mr. Kakade and Mr. Suresh for their cooperation. I also thank PG section of Pune University for their cooperation and help. Financial assistance from UGC-CSIR, New Delhi is greatly acknowledged.

It’s my pleasure to thank all my lab mates Pratibha, Varun, Dayanand, Chaithanya, Senthil, Dattatraya, Venkat, Brij, Rambabu, Souman, Sunita, Ravindra,
Anil, Komal, Ravi, Pragati, Maduri, Pushpa, Hari, Satish, Santosh, Nagesh, Rana, Baba, Sandeep, Kaleshweran, Muthuraja, Ashwini, Deepa, Manjunath and Pramod for providing a cheerful atmosphere in the lab and in every aspect throughout this research. I am very thankful to Dr. Arun R Jagdale and Mr. I. N. Chaithanya Kiran for their useful suggestions in each stage of my research career.

I wish to thank all my Telugu friends in NCL especially Raman-Sriprya, Swaroop, Sridhar-Kavitha, Rajendar-Yogitha, Bhargav, Venkatesh, Srinu B, Satyanarayana, Ragupathi, Srinivasrao, Ramesh, Abhijit, Vilas-Sunitha, Yadhu, Narsima, Ravi, Saty (Manoj), Venu, Ajay, Babu, Sunil, Durga, Siva, Janakiram, Bhogesh, Narsima k, Ramreddy, Narendra, Suresh, SReddy., Trinadh etc. for their support and care during all these years.

My special thanks to other friends in Pune Manu, Srinu and all GJ hostelites for their help and support.

I thank all my MSc classmates especially Kiran, Jithu, Bunny, Ramreddy, Ramarao, Michael, Malli, Nagaraju, DCnaidu, Srinu, Ramesh, Anji, Dhamu, MHLN, Ashok, Ranjit, Ravikanth for their help and care.

The love and affection showered by my parents and grandparents on me is magnanimous. Without understanding what I am doing, my beloved parents and grandparents have supported me throughout my career with lots of patience. I always love my brother R. Sridhar Reddy for their belief in my abilities and constant encouragement. I also thank my uncles, aunts, brothers, sisters, brother in laws, for their support and best wishes. I am indeed very thankful to all my relatives for their love, care and support.

I wish to thank Uma Sai, my wife, for her love, affection and support extended to me during this work.

I wish to thank great scientific community whose achievements are constant source of inspiration for me. Above all, I thank God Almighty for His enormous blessings. Though, many have not been mentioned, none is forgotten.

R. Santhosh Reddy