Acknowledgments

When I summon at the years of this course, without doubt I see one of the best periods of my life. Besides, day by day quest of learning, this precious period taught me to coordinate, consolidate, to handle situations and circumstances which are far peculiar from my own culture. Above all the discoveries and learning’s, the personal discovery of mine stands up. With all these personal findings, the chemistry would have not been happened without the people who walked with me through these days..... It is a great pleasure to express my genuine and heartfelt thanks and obligation to the following individuals for extending help, guidance, support and constant encouragement during the course of this work.

It gives me endless pleasure to express my deep sense of reverence, respect and gratitude to my research supervisor Dr. Geetha R Balakrishna, for her cool headed, well-balanced heraldic advocacy, constant co-operation, careful observation, unfailing commitment, and valuable suggestions in finalizing this research work to a successful one. Her humane as well as humanitarian treatment in the stormy situations upgraded me to a lot for the fulfillment of the target. I consider myself very fortunate in that and it would have been impossible to achieve this goal without her support.

I owe a great debt of gratitude to Dr. Mahesh S. Padaki, Asst. Prof., Center for Nano and Material Sciences, Jain University, Bangalore, for his timely advice, constant encouragement, aspiring guidance, invaluabley constructive criticism, friendly approach and for providing necessary facilities required for the work. I owe an inmost recognition for his patience and support.

I am grateful to Prof. Khontong Soontarapa, Department of Chemical Technology, Faculty of Sciences, Chulalongkorn University, Pathuwan, Bangkok, Thailand, for providing me an opportunity to pursue part of this work in their lab and for the freedom given to utilize the facilities at Chulalongkorn University.
Thanks are due to the Jain University, Bangalore, INDIA and Thailand Research Fund – (IRG 578001), Chulalongkorn University, Bangkok, THAILAND for financial support that was given through Meritorious Fellowship.

My individual thanks to Dr. Sandeep Shastri, Dr. G. Nagendrappa, Dr. Suresh kumar, Dr. Mythili Rao and all other faculties who guided me and created a pathway for the success of this work via course work program.

It is my radiant sentiment to place on record my best regards, deepest sense of gratitude to Dr. Ramaiah, Dr. Nazneen, Dr. Roopa D. L., Dr. Prabhakar Belvadi and Somashekar Mandimatt, who are my inspirations, shining models to take up this task and for the great success.

I express a special word of thanks to my colleagues as well as my friends, Laveena P. Dsouza, Chandan H. R., Shwetha Rani R., Vignesh Nayak, Asha Hirematt, Murali Krishna, Manjunath K. and Babu V. S for bringing in me faith and confidence, consolation, kind cooperation, for backing and cheering me at turbulent stages. I extend my warm regards to all the faculty members of CNMS department and also office staff, Vidya shree, Mukthamba and Manjunath for their continuous support and help though out the work.

I am fortunate to have a very helping, supportive colleagues and friends Rossarin, Rossukon Paonil, Praween, Boomie, Saille and many others at Chulalongkorn University, who made my stay memorable one in Bangkok. I take this opportunity to express my regards and wishes to them.

I owe more than myself to my mother C. Shanthaveeramma, who is my true strength, brother, Omakar M. S., sister, Gayathri M. S., brother in law, Jayanna B. T. and also Varun Brungi, Varsha Brungi, and all other family members in addition to the two precious souls of my life, Syed Mahaboob Basha and B. Jayashree for their enormous encouragement and support from time to time and who always dreamt that I reach golden heights and own a crown of success.
Also, by looking forward to a beautiful journey of life, not forgetting to owe a special thanks to my fiancée, Roopesh M. and my in-laws whose love and selfless care indirectly contributed for the fulfillment of this work.

JYTOHI M S