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 every day in the questions addressed by this thesis. To ensure credit where it is due, the acknowledgments and thanks enumerated here not only go to those who have aided me in an 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 & Prof. V. P. Vaidya's research group. It is a pleasure to convey my gratitude to them all in my humble acknowledgment.

In the first place 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 experiences throughout the work. Above all and the most needed, he provided me unflinching encouragement and support in various ways. I am immensely benefited by the advice and guidance from Dr. K. M. Mahadevan who always granted me his time even for answering some of my unintelligent questions. His scientist intuition has made him an oasis of ideas and his passions in science, exceptionally inspired and enriched my growth as a student, researcher and a human being I want to be.

Many thanks go in particular to Prof. V. P. Vaidya. I am much indebted to him for his valuable advice in science discussion, supervision and furthermore, using his precious time to read this thesis and giving his critical comments. Thank you sir.

Many people have contributed to this thesis, in a variety of ways. I would like to thank the following faculty former and present members from the Department of Chemistry and Industrial Chemistry: Prof. B. S. Sherigara, Vice Chancellor, Kuvempu University, Prof. P. Vasudeva Nayak, Director, School of Chemical Sciences, Dr. J. Keshavaiah, Dr. T. V. Venkatesha, Dr. Y. Arthoba Naik, Dr. H. S. Bhoja Naik, Dr. K. V. Vasantha Kumar Pai, Dr. K. R. Venugopal Reddy, Dr. H. M. Vagdevi and
Dr. Basavaraj Padmashali. They are all provided me with encouragement throughout my work, giving me perspective from the other side of the Ph.D. fence and letting me know I was in their thoughts as I passed the various milestones of the thesis path.

I am grateful to Dr. Vijay Sheshadri, Reader, Department of English, University of Mysore, who has polished my English and the constant encouragement from my colleagues, Dr. T. Demappa, Dr. R. L. Jagadish, Dr. S. K. Rai, Dr. K. Shivachithappa, Dr. G. S. Premkumar, Dr. Chandrakiran and Dr. B. K. Bettadiah.

Thanks especially to Mr. M. N. Kumaraswamy, Mr. D. B. Aruna Kumar, Mr. G. K. Prakasha, Mr. C. Chandrashekar for the all inspiring discussions, their advice and their willingness to share their bright thoughts with me, which were very fruitful in shaping my ideas and research.

Writing of this doctoral thesis would not have been possible without the help and advice by Dr. B. P. Nandeshwarappa and B.M. Kiran. It is quite difficult to write appropriate acknowledgments that reflect the assistance and inspiration I was given throughout.

I am immensely grateful to my wife D. J. Manasa and my friend M. D. Siddaraja, and his wife Deepa, who have added richness to my life with their tremendous love and humor. I am very grateful to my beloved sisters Mrs. G. K. Yashoda, Mrs. G. K. Sakamma, Mrs. G. K. Bhagya, Mrs. G. K. Geetha, Mrs. G. K. Annapurna and all my brothers-in-law for their love and moral support throughout my life.

I cannot list all the people who made my life in the University campus worthwhile. Doubtless, without friends I would never have managed to get through this work. Thanks to all the Research Scholars of Department of Chemistry and Industrial Chemistry.

It is a pleasure to express my gratitude to the Non-Teaching Staff of both the Departments for their timely help in the preparation of this thesis.

Where would I be without my family? My parents deserve special mention for their inseparable support and prayers. My Father, T. Gundibasappa and My Mother Smt. Kamalamma have instilled me the joy of intellectual pursuit ever since I was a
child. Although they may not have shared in my fondness for science, they have supported me in everything I have done. I am eternally grateful to them.

Finally, I place on record my thanks to S.G.S Computers, M.P Computers and Ganga Book Binders, Shankaraghatta, for their neat work in preparing this thesis.

G. K. Nagaraja