ACKNOWLEDGEMENTS

From the innermost depths of my heart I give all gratitude and praise to God Almighty for this work has been accomplished whose everlasting mercy and abundant compassion have ensured the accomplishment of this research.

I sincerely express my deep sense of gratitude to my Research Supervisor, Prof. P. NAGARAJA, Professor in Analytical Chemistry, Department of Studies in Chemistry, University of Mysore, Mysore, for his invaluable guidance through spirituality, constant supervision, inspiring advice and constructive co-operation. The encouragement to plan and execute experiments independently, as well as freedom to innovate that he gave me, made my research work a rewarding and enriching experience. His emphasis on meticulousness and attention to detail has made this thesis a reality.

I am very grateful to the Board of Studies in Chairman, Prof. D. Channe gowda Department of Studies in Chemistry, University of Mysore, Mysore, for his support and encouragement.

I am also very grateful to the Chairman, Prof. H. S. Yathirajan, and Doctoral committee members, Prof. Y. B. Basavaraju, Dr. K. N. Mohana, Department of Studies in Chemistry, University of Mysore, Mysore, for their support and encouragement.

I greatly acknowledge the timely assistance and priceless support rendered by Prof. K. S. Rangappa, Prof. B. N. Achar, Prof. Syed Akheel Ahmed, Prof. D. Channegowda, Prof. K. Basavaiah, Prof. K. M. Lokanath Rai, Prof. S. Ananda, Prof. Shashikanth, Prof. G. Nagendra prappa, Prof. Nagaraj Naik, Prof. Y. B. Basavaraju, Dr. K. N. Mohana, Dr. H. D. Revanasidappa, Dr. M. P. Sadashiva, Dr. K. Mantelingu, Dr. B. S. Priya, Sri. Y. L. Somashekhar for their valuable advice, help and encouragement.

My special thanks to Dr. Nandakumar, Department of Biochemistry, Mysore Medical College, Mysore and Kantharaju, Mysore Medical College, Mysore and Dr. Devi, JSS Medical College, Mysore and for their valuable conversation and timely help.

It is my privilege to acknowledge the knowledge shared by my research colleagues Dr. A. Shivakumar, Dr. K. Avinash, Dr. Naef Ghllab Saeed Al-tayar, Dr. Ashwinee Kumar Shrestha, Dr. L. Vasanth Kumar, N. Aradhana, A. Suma, K. V. Ramya, N. A.
Chamaraja, A. R. Paulas, B. Rajesh, R. A. Roopa and my seniors Dr. M. K. Ningaraju, Dr. B. L. Bhaskar, Dr. Arun Kumar and Dr. R. A. Vasantha.

I take this opportunity to thank my close friends Dr. K. Vinaya, Dr. Dinesh Rangappa, Dr. H. Vijay Kumar, Dr. R. Ranganath, Dr. L. Mallesha, Dr. Rajendra Prasad, L. Shivakumar, Dr. Shivaprasad, Dr. Sameer Alromimah, Dr. Ramdos Bhandarkar, Dr. B. K. Manuprasad, Dr. D. S. Prasanna, G. S. Lingaraju, S. C Santosh Kumar, H. S. Srinidhi, Nagabushan, K. S. Raghunandan, and other research scholars for their kind help and constant encouragement.

My special thanks to K. A. Ranganath, CFTRI, Mysore, for his valuable conversation and timely help.

Mere words are inadequate to express my gratitude and my heartfelt thanks to my Father B. Basavaraju, Mother Premaleela and my Brothers Mahadevaswamy, Vittala and Mukunda, who have been the constant source of inspiration to carry out the research and also for their fervent prayers and efficacious blessings in my endeavors.

I extended my acknowledgement with deep sense of appreciation to the indispensable aid and encouragement, for the love and support, received from my caring friends A. Ananda, Syed Munaf, D. Supriya, Annu raj, V. Sharath, S. Jagdish and all my relatives for their warm and lovely encouragement throughout my thesis work and also those who have always been behind this venture and have proved to be of immense value, I am deeply indebted to them.

Author is grateful to University Of Mysore, Mysore (SC/ST Special Cell) for the grant of Research Fellowship and University of Mysore for granting permission to carry out the research work.

Finally, I take this opportunity to express my gratitude to Faculty and non teaching staff of Chemistry Department, library staff of University of Mysore, and CFTRI, Mysore who encouraged and helped me during the period of this investigation, and assisting in bringing out this thesis, and I hope all of them will accept my sincere thanks individually and collectively for all they did.

Honnur Krishna