ACKNOWLEDGEMENTS

In my ongoing journey, this thesis marks an important milestone. The making of this milestone is incomplete without the conceptual, technical, editorial, moral and financial help of many. Hence; I would like to record my gratitude for the guidance and support that I received in the making of this thesis.

It gives me great pleasure in expressing my deepest sense of gratitude to my research supervisor Professor D. Basavaiah, for excellent guidance and invaluable suggestions throughout my research tenure. My skills however limited as it maybe owes to the rigorous training and guidance of my supervisor.

I thank the present and former Deans and all the faculty members of the School of Chemistry for their timely help and cooperation during my Ph. D. program. I am thankful to Professors T. P. Radhakrishnan and S. Pal for their helpful discussions regarding the X-ray data analysis. It is great privilege to express my heartfelt regards to Professor T. R. Rao, Department of Chemistry, BHU and Professor B. Ananthakrishnan, S. N. School, UOH for their useful suggestions and help and helping me to handle moral panics as a student and researcher.

My special thank to Dr. P. Raghavaiah for his help on different occasion. I acknowledge the help and support provided by the technical and non-teaching staff of the School of Chemistry. I also thank Mr. S. Satyanarayana, Mr. V. Bhaskara Rao, Mrs. Asia Perwej, Mrs. Vijaya Laxmi, Mr. M. Shetty, Mr. Thurabuddin, Mr. Prasad, Mr. Durgesh for their timely and invaluable help.

National Single Crystal X-ray Facility and HRMS Facility funded by DST (New Delhi) in School of Chemistry and the financial assistance by CSIR (New Delhi) and DST (New Delhi) is gratefully acknowledged.

I am extremely thankful to my seniors Dr. K. Venkateswara Rao, Dr. J. Raju Reddy, Dr. Veerendhar, Dr. B. Devender, Dr. P. Anupama, Dr. K. Ramesh Reddy, Dr. Utpal Das, Dr. D. V. Lenin Babu, Dr. K. Aravindu, Dr. Suparna Roy, Dr. B. Sekhara Reddy and present labmates K. Santosh Kumar, D. Mallikarjuna Reddy, G. Veeraraghavaiah, G. Chandra Sekhar Reddy, Sutanuka Pal, B. Lingaiah, Ch. Sayanna, Harathi L., P. Thamizharasi, Dr. R. B. Singh, Dr. K. C. Bharadwaj for
their timely help and pleasant association and helping me to tide over emotional and academic turbulences. I thank my co-worker Dr. B. C. Sahu for his help and co-operation.

I am very thankful to all friends in School of Chemistry especially Rajeshwar, Monima, Mosumi, Naba, Tanmay, Vikarant, Ranjeet, Sanjeev, Tridip, Pawan, Srinivas Reddy, Phani, Suri, Rajesh, Dr. Jagadeesh, Laxman, Ramasuresh, Venu, Naveen, Anji, Thiru, Praveen, Ramesh, Pradeep, Ramesh, Gupta, Hari, Sekhar Reddy and so on..............

I am thankful to my friends in University of Hyderabad for creating a home away from home particularly Abhay, Shyam, Chetan, Sanjeev, Anand, Tejendra, Anshuman, Sachchida Nand, Naren and group, Sisuranjan and group, Mohit, Anjali, Moolchand, Taphan, Anjani, Rakesh, Venkat, Susil, Sandeep, Sai, Guru and group, Manish and my friends form different places, Sarwan, Madhu, Amantullah, Dhirendra, Shyam Raj, Badrinath, Gaurav Taneja, Shivakant, Sarita, Sarika, Samta, Susil, Prdeep, Motilal, Tejpal, Rajpal, Alok, Surajbhan (IRS), Tinku, Hena, Kuldeep for their heartily support.

I express my deepest affection to my mother & father, aunty & uncle (late.), Grandma for their support, encouragement, deserves great appreciation. I would like to express my sincere gratitude to my brothers Jugmohan, Dr. Surendra, Kamlesh and my sisters Suman (Nunu) and Anu for their constant support, timely help, and supporting to my rest of family. I am also extremely thankful to my in-laws family and Bua’s family for their love and affection. I would like to state my inexplicable gratitude for all the family members for suspending the family priorities for me to facilitate my research work. It is my journey - rather than the thesis - that matters to them and I hope I have not disappointed them.

Finally, I wish to place on record my gratitude for the person who deserve the real appreciation “my wife” MONA who stood firmly behind me guiding and assisting me to do my research. She was the source of strength and accommodated all my frustrations and anger in a graceful manner. The research could not have been completed if not for her silent but important role in my research.

Satpal Singh Badsara