

ACKNOWLEDGEMENTS

I am thankful to the Guruji and Almighty God, who showed me the path to through. It is very difficult to name all the sources of inspiration; moreover, words are often too weak a mode of revealing one's sentiments and feelings of indebtedness. First of all, I embrace this opportunity to express my deep sense of gratitude to my supervisor Prof. P. C. Pandey, Department of Chemistry, Indian Institute of Technology, Banaras Hindu University, Varanasi for his constant guidance, valuable suggestions and kind encouragement during my association with his research group. He has challenged my way of thinking and provided valuable advice and guidance for my research. I have learnt many things about research and various skills from him.

I am thankful to Prof. M. A. Quraishi, former Head, Department of Chemistry, IIT (BHU) and Prof. R. B. Rastogi, Head, Department of Chemistry, IIT (BHU) for providing me required facilities of the department. I also wish to thank the RPC members Prof. M. M. Singh, Dr. D. Tiwary and Prof Rajiv Prakash, for the invaluable inspiration and numerous insightful suggestions during the entire course of this research. I am also thankful to all the teaching, non-teaching as well as official staffs of the Department of Chemistry for their assistance when needed and also for providing me humorous relief at times.

Moreover, I am thankful to all members of Prof. Pandey's group, Digvijay, Gunjan and Shubhangi for sharing their knowledge and creating enjoyable lab atmosphere both on and off the slopes. I heartily acknowledge the invaluable cooperation and timely suggestions of my seniors Dr. Vandana Singh, Dr. Dheeraj S. Chauhan, Dr. Ashish K. Pandey, Dr. Arvind Prakash and Dr. Sitashree Banerjee for the valuable discussions, help and for their awesome company.

I am grateful for all the support and encouragement to all of my friends and seniors. There are too many to name everyone here, but particular thanks also to Divya Singh, Monika Singh, Narendra Singh, Vinay, Punita, Lata, Surendra and Chandrashekhar for their essential support and the nice friendship.

It is hard to express my feelings of gratitude to my parents Mr. S.K. Singh and Mrs. Shivdhatri Singh for their continuous prayer, support, encouragement and their care has raised me to attain this esteemed pleasure of submitting this work for the degree of Ph. D. My Grand-mother, Uncles, Aunts, brothers, sisters, and all other family members provided me invariable support, love and affection when I needed it most. I would like to thank my husband Mr. Pankaj Singh, father-in-law, mother-in-law and other members of family for their silent support during the last two years of my research.

I would also like to acknowledge the DST and MHRD, Government of India, for providing me financial assistance (Junior Research Fellowship and Teaching assistantship).

Last but not least, I wish to thank all my friends and foes and the persons whose names have not been included on this piece of paper for extending their cooperation: directly or indirectly. This at all, if it is there, this is inadvertent!

(Richa Singh)