

Acknowledgement

It takes a long duration to write a PhD thesis, though not as long as it takes to carry out some of the chemical reactions. I would here like to express my thanks to the people who have been very instrumental in allowing this project to be completed and helped me during the time it took me to write this thesis.

I have been very fortunate with my advisor, K. S. Siddiqi, Professor, Department of Chemistry, Aligarh Muslim University, Aligarh, who was the initial instigator and early on provided advice, encouragement and many insightful conversations during the course of this work. He as well provided many helpful comments on the text. Without his willingness, suggestions and criticism this endeavor would not have been possible.

My thanks must also go to the Chairman, Department of Chemistry, Aligarh Muslim University, Aligarh for providing necessary research facilities.

I express my gratitude to, Dr. Yonas Chedude, Department of Chemistry, Addis Ababa University, Ethiopia, Dr. M. Yamin Siddiqi, Dr. N. H. Kian, C.S.M.C.R.I., Bhavnagar, Gujarat, Prof. M. Mushfiq and Prof. M. Shakir, Department of Chemistry, Prof. Masood, Dr. Imrana Naseem, Department of Biochemistry, A.M.U., Aligarh, India, as they were always willing to help me through various suggestions and discussions related to my work and at times lent me a hand in carrying out some useful experiments.

I further would like to mention my sincere thanks to all my lab colleagues particularly Mahboob bhai, Fauzia apa, Farah apa, Ahmad, Nazim, Suraya and Azhar bhai; it was a pleasure working with them.

My friends Eram for supporting me at each and every step, whether tough or easy, of this journey of three years. I cannot forget the good times spent at the hostel with Eram and Sumbul. I do express my humble feelings towards my senior colleague Shaukat bhai.

I must acknowledge my colleague, Shahab bhai with whom I explored the ideas, organization and development of this project and who also taught me to be patient, which is the most important prerequisite of a Ph.D. Programme.

During the course of this work at, Aligarh Muslim University, I was supported by grants from U.G.C. and C.S.I.R., New Delhi, India. Thanks are due to C.D.R.I., Lucknow, I.I.T. Kanpur and I.I.T. Roorkee, India, for providing the necessary instrumental results.

Most of the data on which this thesis is based has been obtained from the A.M.U. guaranteed time programmes especially important in this context were the workshops I was fortunate enough to attend.
Belind the compiled dream are my parents who have been an inspiration throughout my life, supporting my aspirations and if I do say so myself, I think they did a fine job raising me. I would like to thank them for all they are and all they have done for me.

My sisters Mana and Sumbul, for their love and understanding at times when the going used to get tough, my brother Sayam, who helped in troubleshooting all the computer related queries and making man to computer interaction easy for me.

I would like to thank Ovais for proving to be a wonderful friend. Certainly you have added an everlasting happiness in my life.

Sadaf Khan