Acknowledgement

Praise to be Allah, the Lord of the worlds, Who says in His Glorious book, “Iqra! (or Read!) in the name of thy Lord and Cherisher, Who has created (all that exists), Who has taught (the use of) the pen”. And peace and blessing of Allah (SWT) be upon the noblest of the Prophets and Messengers, our beloved Prophet Muhammed (SAW) who said, “Seek knowledge from cradle to grave”. I praise you Allah (SWT) for everything You bestowed upon me, especially for Your favour in completing this work.

It is my genuine pleasure to acknowledge with deep sense of gratitude and humble submission, the enthusiastic support and never failing encouragement, extended by my supervisor Prof. Syed Ashfaq Nabi. His systematic and analytical approach blended with constructive criticism and innovative ideas helped me to understand the basics of research and to overcome many experimental hurdles. I really feel that without his valuable guidance and suggestion this attempt could not have taken shape.

I wish to express my sincere thanks to Chairman, Department of Chemistry, A.M.U. Aligarh, for providing me all research facilities. Thanks are due to U.P.C.S.T. Lucknow, India, for financial assistance.

I am highly thankful to my local guardian Prof. Farooque Azam, Department of Botany, for his assistance and support during my admission in A.M.U, Aligarh.

I am thankful to my senior colleagues Dr. Amjad Mumtaz Khan, Dr. Alimuddin, Dr. Mu. Naushad, Dr. Aabid Hussain Shalla, Dr. S.A. Ganai and Dr. Z. Alam beyond words can express for their assistance and support in completing the task.

I owe my heartfelt gratitude and make a special mention of my friend Rani Bushra for their help and friendly attitude. He enlightens me on various aspects of the study, guided and helped me in providing necessary information and innovative ideas related to this thesis. I also thank to my lab colleague Abdol Salam Raeissi being there for me always whenever their help was needed.

I thank all the non-teaching staff of the department for their help during the research work. A special word of thanks goes to Mr. Rifaquat, Mr. Qadir, Mr. Rehan, Mr. Parvez, Mr. Mishbah, Mr. Ifikhar for their help and support.

I am highly thankful to my 3 idiots Asad, Akil and Ahmad for their consistently support and wishes at every phase of my life and study. I am indebted to my friends

Last but not least I don’t have words to express my humble gratitude towards my family, whose unnerving and unending support helped me to fulfil this ambition. Their understanding support and blessing made me to follow and chase my goal. I feel honoured to thank my father Mr. Shamshuddin Ansari and my mother Mrs. Zehara Khatoon who stood by me through every painful and happy moment and made me believe that my world is empty without them. Their constant and unconditional faith in me has really contributed in the culmination of this work. I also thankful to my uncle Mr. Shameem Ahmad, Mr. Naseem Ahmad, Mr. Raisuddin and Phupies who encourage me in every critical point during my study.

I must acknowledge the contribution of my loving brother Mr. Nawab Ahmad and sisters Mrs. Rani, Mrs. Shaheen Baaji, and Brothers-in-law Mr. Tahseen and Mr. Arif Bhai sahab, with my affectionate sisters Heena, Zeba, dearest Bhabi and cousins Shahzad, Dilshad, Lovey, Nauman and Shahanawaz who have been a constant source of energy to back me up whenever I feel low either at my professional or personal front by helping me in every possible way to surpass any hurdle in my life. I am forever grateful to them.

I feel privileged thank Mrs. Shabnum, Mr. Moin, Sarah, Mrs. Fauzia Begum, Mr. Farman, Hadia, Mr. Allauddin, Mrs. Qamar, Sheeba whose dedication to the fulfilment of this task whose material and ideological support and whose energising encouragements paved this way for me to carry on this work all through this time it has taken.

Formally this acknowledgement would have been incomplete without the mention of my loving Dada, Dadi, and Nani. She has been a constant support of energy to back me up whenever I felt low either at my professional front or personal front.

A special thanks to the family kids whose naughty ways always gave me a reason to look positive towards every development in my life.

(Mohammad Shahadat)