Acknowledgement

All praises to Almighty, The Supreme power, for providing me with all that I could ask for and more and gave me enough strength and ability to accomplish this research crusade possible.

I feel it the greatest honor to express my deep gratitude and indebtedness to my supervisor, Prof. Asif Ali Khan for giving me the opportunity to be a part of his research team. I thank him for his great patience, constructive criticism, myriad useful suggestions and unwavering support extending beyond the academy. His sense of discipline and sincerity towards academics has been a constant source of inspiration for me.

My heartfelt thanks are due to Prof. Ali Mohammed, Chairman of the department for unobtrusive benefaction of all necessary facilities throughout this research work. I am grateful for his proficient guidance, moral support and abounding encouragement.

I would like to thank my unfailingly pleasant and interesting lab colleague Dr. Anees, TabAssum, Umair and especially Dr. Khalid, for their assistance. Special thanks are due to great companions Shakeeba and Habiba for the many good times in the lab and outside that will stay in my memories for years to come.

I also had the luck of being in the cohort of some magnificent human beings, my friends Bushra, Debjani, Pakeza, Nousheen, nazneen, Gulshan, Heena and Dr. Fazli for their helping hands and precious time to share my moments of joy as well as of sorrows. Omaish, Shahid and Waqar need to be specially thanked for their constant optimism and encouragement when needed most.

Existence of me, as a person, as a scholar, was impossible without my great parents. The vision and teaching about life, which I had inherited from my father is a constant source of inspiration and always accompanies me like shadow.

Words cannot define the love and sacrifice of my mother who have unconditionally given me the support and confidence in everything that I strive for.

I am fortunate to have very understanding and caring husband, Mr. M. Biswas, who always stood by my decisions and provided me all the resources even in difficult times to help me achieve my goals and realize my dreams. Heartfelt thanks for cheering me up when the going got tough, for listening with patient ears to all my whining and above all for being such a wonderful friend.

I’m blessed with nice sisters RUNA, Dawna and Kastura, their love and support kept my morale high throughout this voyage.

I would like to express the utmost thanks to my in laws and rest family members for their generous blessings and motivation.

I also want to express my gratitude to all non-teaching staff especially, Farooq, and research scholars of the department of Applied chemistry for extending full cooperation and encouragement during my research studies.

(Leena Paquiza)