ACKNOWLEDGEMENTS

I am highly grateful to “Almighty Allah”, the sustainer and the supreme, “who taught the use of pen” and “taught Man which he knew not” for his diverse favours and blessings, without which it would have not been possible for me to advance in life and reach to this point in my career.

I would like to express my heartfelt gratitude to my supervisor Dr. Faiz Mohammad, Professor, Department of Applied Chemistry, Aligarh Muslim University, Aligarh, for his guidance, necessary suggestions, constant encouragement and generous support and it is only because of his vast knowledge, understanding, patience and valuable advice that this work has reached its completion.

I am grateful to Prof. R.A.K. Rao, Chairperson, Department of Applied Chemistry, for all the research facilities provided to me during the tenure of my research work. I appreciate and thank to all the faculty members and the non-teaching staff of the department for their cooperation and assistance.

Special thanks are due to Mr. Javeid Shabir, Dr. Mohammad Aslam O.P., Mr. Mohammad Shoeb, Mr. Md. Samim Hassan, Dr. Waseem Raza and Dr. Mohammad Omaish Ansari who were always there for me and provided constant support during this period. My stay at A.M.U. during all these years has been particularly fascinating and it gives me immense pleasure to recognize the love of all those who made this stay a memorable one. The list is long but I wish to acknowledge the excellent and sincere support specially from Dr. Shahid Pervez Ansari, Dr. Tarique Anwer, Mr. Adil Sultan, Mr. Mahfooz ur Rahman Khan, Mr. Syed Md. Humayun Akhter and Mr. Ahmad Hussain as my laboratory colleagues. I would also like to thank to my friends Mr. Nazish Ali, Dr. Ajahar Khan, Mr. Firdous Ahmad Butt, Ms. Azra Aftab, Ms. Adeela Asim, Ms. Saman Zehra, Dr.
Ms. Shakeeba Shaheen, Mr. Mohammad Salih P.P., Mr. Syed Mohammad Adnan, Mr. Syed Nasar Ata, Mr. Mohammad Zeeshan, Mr. Gulam Nabi Naz, Mr. Mudasir Ahmad Yatto, Dr. Nayeem Ahmad, Mr. Wajid Ali and Mr. Sheth Zulfiqar for their support during the tenure of my work.

Of course no acknowledgements would be complete without giving thanks to my family. I would like to thank my brothers Rais Ahmad, Danish Aftab, Jalees Ahmad, Shan Qamar, Arshad Nawab, Aqeel Ahmad, Asad Nawab and my sisters Nilofer, Tabassum Parveen and Late Samreen Iqbal for their warmth, encouragements and cooperation. They have been a constant source of inspiration and motivation for me and have always spurred me towards excellence. I would also like to extend my thanks to my uncle Janab Ayyub Ahmad Sahib for his constant supports when the spirits were low during this journey.

Finally, I don’t find sufficient words to thank my father Janab Aftab Ahmad and my mother Mohtarma Sayeeda Khatoon for their unconditional love, support and guidance at every stage of my life. They have been there for me even when I didn’t know anything about the world and myself. They’ve taught me hard work, self-respect, about persistence and how to be independent. Without their sincere love, prayers and encouragement, it would have not been possible for me to be successful in my endeavours.

Sharique Ahmad