ACKNOWLEDGEMENT

Praise be to the God for his blessings bestowed on me and for favoring the successful completion of my work.

I am extremely grateful to my supervisor Dr. Rais Ahmad for his invaluable guidance and suggestions which greatly helped me to overcome all the difficulties encountered during the entire period of my research work.

I gratefully acknowledge the facilities provided by the Chairman, Department of Applied Chemistry, in carrying out the experimental work. I have deep sense of gratitude for the members of the Department of Applied Chemistry for their cooperation and inspiration.

My special thank to Professor, Dr. Rifaqut Ali Khan Rao, for providing useful suggestions and support.

I am thankful to my seniors Dr. Moonis Ali Khan, Dr. Nazrul Haq, Dr. Vikas Bharadwaj, Dr. Pijush K. Mondal, Mrs. Fozya Raihman, Dr. Peter Bhai, Dr. Tabraz Bhai and colleagues Mrs. Shaziya Hazeeb, Ms. Shahista Ikram and friends Dr. Ayaz, Dr. Parwaz, Dr. Jamal, Rehan Bhai, Omais, Ahmad Husian, Jawed Bhai, Dr. Shahid Bhai, Dr. Shaista Bano, Fatima, Shabana, Yousuf, Irsad, Girish, Wasi Bhai, Dr. Asad, Shahadat Bhai, Aqueel, Belal and Goldy for their help, discussion and encouragement.

Although there are many more people who played an important role in my academic and personal development, however it would be impossible to mention all their names. I am obliged to all of them for their vital contributions.

I am very much indebted to my parents and grandfather for their unfailing love and blessing. Words may fall short if I relate how much they have done for me. Special mention goes to my brother Mr. Hemraj Singh and sister-in-law Mrs. Sunita Chauhan for their encouragement and interest in my academic pursuits.

(Rajeev Kumar)