ACKNOWLEDGEMENTS

I owe a deep sense of gratitude to Dr. M.A. Beg, Professor of Physical Chemistry, whose guidance during the course of this work is far greater than that of a mere supervisor. His ideas have certainly inspired me in my endeavour to accomplish my work.

I am extremely thankful to Dr. Afaq Ahmad, who took over as an immediate guide when Prof. Beg left for his assignment abroad. Dr. Afaq Ahmad provided me timely support and inspiration needed for completion of my work successfully.

Thanks are also due to Prof. S.M. Osman, ex-Chairman, Department of Chemistry for providing necessary research facilities.

I thank Dr. Z.A. Siddiqui, Reader, Department of Chemistry and Mr. Taimur Athar for rendering advice and help whenever sought for.

I am extremely thankful to Dr. M. Anees, Lecturer, Department of Chemistry and Mr. Mashhood Alam, Research fellow, Department of Physics, for their help in computation of data on VAX 11.

Thanks are also due to my laboratory colleagues Dr. Suhail Sabir, Dr. Rafiuddin, Dr. M.S. Kidwai and Dr.(Mrs.) Amita Jain.
It will not be out of place to thank my friends especially M/S. Shahid Fatah, Asad H.Khan, Waquier Ahmad, Augustine George Masih, Mahesh Notteyal, Tanweer Ahmad, Asif Sayeed Khan, Ahsan Amanullah and Ishteyaque Ahmad.

I won't be able to forget the love and affection showered by Diana, Doris, Danis, Miss Shanta, Mrs. and Mr. David and my younger brothers H. Irtaza and Mr. E. Hussain on me during my stay at Aligarh.

I, very sincerely, acknowledge Dr. Mohd. Tufail, Mr. Ishtiyaq Ahmad and Mr. M. Asim Ali of Aligarh Computer Centre for their help in Word Processing in giving the thesis the present shape.

Financial assistance from the University Grants Commission, New Delhi is gratefully acknowledged.

Last but not the least I do not know how to thank one of my dearest friends Mr. Saad S. Haque for giving me the most enjoyable moments at Aligarh.

(Hassan Askari)