Acknowledgment

The work on this thesis has been an inspiring, often exciting, sometimes challenging, but always an enjoyable experience. The writing of this thesis was a shared experience. This thesis owes its existence to the help, support and inspiration of many people. It is a pleasant aspect that I now have the opportunity to express my sincere appreciation and gratitude to all of them.

In the first place, I would like to record my gratitude to Dr. (Mrs.) Anuradha Varshney, Reader, Chemistry Department, D. G. College, Kanpur, for being an outstanding advisor. Her constant encouragement, support, invaluable suggestions and fruitful discussions greatly enriched my knowledge and made this work successful. Her perpetual energy and unflinching enthusiasm has motivated me the most. She was always accessible and willing to help us with our research. Her uncompromising quest for excellence has made deep impact on me.

I gratefully acknowledge Dr. A. K. Srivastava (F.N.A.Sc.), Prof., Chemistry Department, H.B.T.I., for his contributions and valuable feedback which made him a backbone of this research and to this thesis. His exceptional insight into Polymer Science and original thoughts has triggered and nourished my intellectual maturity that I will benefit from, for a long time to come. I also owe gratitude to Dr. (Mrs.) Reeta Srivastava for her constant support.

My special thanks go to Dr. Nagendra Swarup, Secretary, Dayanand Shiksha Sansthan for providing infrastructural support and Mr. Gaurvendra Swarup, Secretary, D. G. College, Kanpur.

I am also very grateful to Dr. (Mrs.) S. Johri, Principal, D. G. College, Dr. (Mrs.) Sushma Rani, Head, Chemistry Department and all the faculty members of Chemistry Department for their continuous support and encouragement.

I would also like to thank Prof. Dr. D. C. Rupainwar (Retd.), B.H.U., for his help and support.

My sincere thanks to Mr. Nayab Ahmad, I.I.T., Kanpur, for his generosity of providing me spectral facilities. Without his help, this work would never have completed.
I owe special gratitude to all my colleagues, Mrs. Nalini Jain, Dr. (Mrs.) Kiran Prajapati and Dr. (Mrs.) Smita Srivastava for sharing experiences and knowledge and extending their valuable cooperation and help in every possible way. It was a pleasure to work with them.

Words fail to express my appreciation to my mother Mrs. Sudha Srivastava and my father Mr. M. M. Srivastava for their love, never ending encouragement, moral support, patience and understanding during the research work. They have always been my best counselors. I am also very grateful to my brother Mr. Yash Mohan and bhabhi Mrs. Neeti Mohan for their unconditional support.

Special thanks go to Mr. Rajpal Singh, Malti Graphics for the timely completion of this thesis.

Lastly, I would like to thank everybody who was important to the successful realization of thesis as well as expressing my apology to those whom I may have forgotten to mention in this list.

(UPASANA MOHAN)