ACKNOWLEDGEMENT

As a researcher, I feel proud to be a member of H.B.T.I., which is one of the premier educational institutes of India in the field of science and technology. This Institute and its learned staff provided me a chance to see, enquire, establish and learn. Now I am happy enough to present my work for award of Ph.D degree in Chemistry from this Institute.

I feel myself blessed with the presence of two eminent scientists as the mentor and supervisor for this study. As a researcher, I feel out of words to express my gratitude to my supervisors Dr. PN. Maheshwari and Dr. S.K. Upadhyay whose guidance, co-operation and encouragement enabled me to complete this mammoth task.

I am obliged to Dr. V.K. Jain (Director), Prof. Gauri Shankar (Head, BEFT); and Dr. A.K. Srivastava (Lead, Chemistry) all from H.B.T.I., Kanpur for providing necessary facilities and support for this research work.

I am thankful to Dr. Rita Kar, Dr. S.K. Mandal, Dr. K. Singh and entire staff of B.E.F.T. and Chemistry departments for their co-operation and help extended to me during the course of research work.

I also express my thanks to my friends Ms Sudha Agarwal, Dr. Manjari Gupta, Ms Anjana Srivastava, Dr. Praygva Mohan, Ms Aparna Tripathi and Ms Dipti Shukla for their valuable suggestions and emotional support to me throughout the study.

I have deepest respect and regard for all my family members for giving me a chance to complete this academic venture.

My thanks are also due to all those who have given their hands and precious time for bringing out this thesis in its present form.

Date: 06-11-98

(RASHMI SHUKLA)