ACKNOWLEDGEMENT

I express my indebtedness to Dr. D.V.S. Jain, Reader in Physical Chemistry, for suggesting me the work presented in this thesis. His constant and valuable guidance helped me a lot in the accomplishment of this work. I gratefully acknowledge his helpful criticism and encouragement during the course of these investigations. His thorough knowledge of the subject had been a constant source of inspiration to me.

I take this opportunity to thank Dr. R.K. Dewan, Lecturer in Physical Chemistry, for the encouragement and guidance in pursuing these investigations. His frank and friendly attitude has helped me to express more freely during the discussions with him.

It is my pleasant duty to thank Dr. R.C. Paul, University Professor and Head, Department of Chemistry, Panjab University, for providing the laboratory facilities.

Thanks are also due to my colleagues, namely, Mr. C.K. Jain, Dr. Bhajan Singh, Mr. Surjeet Singh, Mrs. Sudesh Beri (then Miss Sudesh Sahi) and Mr. Baldev Singh, for assistance and useful discussions at various stages. Mr. Jain's attitude of creating a lively atmosphere in the laboratory cannot be forgotten.

(K.K. Tewari)