ACKNOWLEDGEMENTS

I am deeply beholden to my teacher and research supervisor, Dr. S. Brahmaji Rao, M.Sc., Ph.D. (Hamburg), Professor and Director (Academic), Andhra Pradesh Open University, Hyderabad who has been a source of inspiration to me right from the beginning of my research work. As a matter of fact, by bringing to bear his scholarly acumen and critical sensibility on the several discussions we have had on the subject, Prof. Rao enabled me to achieve a greater sense of participation in my work. But for his ready help and constant encouragement, I would not have completed the work.

I am indebted to Prof. S.R. Ramadas, M.Sc., Ph.D., Professor of Chemistry, Indian Institute of Technology, Madras for his valuable advice and constructive criticism during the work. I have always had free access to him for which my grateful thanks to him.

I thank the authorities of Sri Krishnadevaraya University, Anantapur for providing the necessary facilities to carry out the research work. The author thanks the Council of Scientific and Industrial Research, New Delhi for the award of Senior Research Fellowship.
I acknowledge the help rendered by Prof. C. Kalidas, Prof. G. Aravamudan, and Asst. Prof. C.S. Venkatachalam, Department of Chemistry, Indian Institute of Technology, Madras for their valuable suggestions and also my gratitude to the authorities of the Chemistry, Department, Indian Institute of Technology, Madras for providing the facilities to carryout the work.

I sincerely record with thanks to Shri V. Venkateswara Sastry, Research Scholar (QIP), Department of Chemistry, Indian Institute of Technology, Madras for his help and co-operation.

Sincere and special thanks are due to the research colleagues and friends for their continued and valuable help during the preparation of the thesis.

My thanks are also due to the following individuals, Dr. K. Mohana Raju, Pool Officer, Sri Krishnadevaraya University, Anantapur; Mr. R. Sai Ganesh and Mr. S. Aravamuthan, Research Scholars, Department of Chemistry, Indian Institute of Technology, Madras; Miss Vahi Sukanya and Miss Vahi Sarala, Anantapur.

My deep debt of gratitude to my parents for their co-operation, encouragement and blessings.

L.K. RAVINDRANATH.