ACKNOWLEDGEMENT

I take this opportunity to express my deep sense of gratitude to my esteemed Teacher and the Research Guide Dr. S.V. Patil, Professor of Inorganic Chemistry, Karnatak University, Dharwad, for his valuable guidance and encouragement throughout these investigations.

I am grateful to Dr. M. Madaiah, the Chairman, Department of Chemistry, Karnatak University, Dharwad for providing the laboratory facilities, in carrying out these investigations.

My sincere thanks are due to all my teachers for their kind help and encouragement during the course of my research work.

I am thankful to the U.G.C., New Delhi for awarding me the Teacher Fellowship, Board of Management, K.L.E. Society, Belgaum and Dy. Director of Collegiate Education, Dharwad, for granting me the study leave.

I am highly indebted to Professor B.C. Hoskeri, former Principal, P.C. Jabin Science College, Hubli, for his inspiration and encouragement in carrying out these investigations.

I will be failing in my duties if I don't express my gratitude to Prof. K.C. Patil, I.I.Sc. Bangalore, Dr. Lallan Mishra B.H.U. Varanasi, Sri. G.N. Kulkami, U.S.A. and Shri. G.L. Pattar, Bangalore, for their timely help in getting me spectral data of some of my samples studied.

I am grateful to Prin. B.S. Akki, G.I.B. College, Nippani, Prof. G.S. Kalburgi and all my colleagues of P.C. Jabin Science College, Hubli, for their encouragement and support.
The assistance extended to me by the USIC Staff of Karnataka University, Dharwad in getting the spectral data of the complexes studied, is gratefully acknowledged. At the same time I am thankful to the Heads of the R.S.I.C., I.I.T. Bombay and Madras for spectral facilities extended to me.

My special thanks are due to Dr. M.L. Budni, for his constant help and encouragement in bringing out this thesis successfully.

I thank most warmly all my research colleagues and friends for their help and co-operation during the various stages of my research work.

I am grateful to all my brothers and relatives for their encouragement and support throughout the course of my study.

My heartfelt thanks to my wife Smt. Mukta and my children, Master Chetan and Mahadev for their inspiration, unfailing co-operation and patience throughout the course of my research work.

DHARWAD

( D. M. KOTTURSHETTAR )

JUNE 21, 1989