ACKNOWLEDGEMENT

It is a pleasure to record a deep sense of gratitude to Dr. (Ku.) H.nlata Mohabey, M.Sc., Ph.D., Principal, Govt. K.D. Girls' College, Rajnandgaon (M.P.), whose informal attitude together with her inspiring guidance contributed to the completion of my thesis, without which this study could not have been possible.

I express my sincere gratitude to Dr. H.K. Mishra, Professor and Head, Department of Chemistry, Pt. Ravishankar Shukla University, Raipur (M.P.) for generous help and silent encouragement given, at every stage of the present work.

I am thankful to the Principal, Govt. Digvijay P.G. College, Rajnandgaon (M.P.) for providing laboratory facilities.

I am grateful to the Director, C.D.I.R., Lucknow (U.P.) and A.S.I.C., Nagpur for giving analytical results including T.G.A. and I.R. measurements.

I am gratefully indebted to Professor Dr. V.K. Mohabey, Department of Physics, Kalyan College, Bhilai Nagar (MP), for his help in the study of magnetic properties of the complex.
I acknowledge the invaluable help rendered by Prof. D.S. Bharadwaj, Head, Department of Chemistry, Govt. Digvijay P.G. College, Rajnandgaon (M.P.) and Senior Professor Dr. R.S. Mishra and my colleagues Prof. K.N. Sharma, Dr. Alok Mishra, Dr. Anil Kashyap, S.N. Biswas, Smt. Anupama Kashyap, during the course of this work.

I am thankful to Prof. J.L. Gomasta, Controller, Autonomous Exam., Govt. Digvijay College, Rajnandgaon, Dr. Meena Kadav (Nagpur) and Mr. Shabaz Khan for invaluable help during the research work.

Last but not the least I acknowledge my gratitude to my maternal uncle Dr. R.P. Shukla, my mother, wife and loving son Sachin, daughter Gudiya, who were source of inspiration throughout my research work for which I am much indebted.

Finally I wish to dedicate this Thesis to late Dr. M.M. Mohabey (Dada jee), who had strongly motivated me during this work.

(Sushil Chandra Tiwari)