ACKNOWLEDGEMENT

Words are inadequate to express my feeling while recording my deep sense of gratitude and respect to my guide Prof. Hankare P.P., Head, Inorganic Section, Department of Chemistry. The work presented here could not have been accomplished without his inspiring guidance, constructive criticism and constant encouragement during the course of my research programme.

I take this opportunity to thanks Prof. Pawar N. J., Vice-Chancellor Shivaji University, Kolhapur and Prof. Patil S. R. Head, Department of Chemistry for the inspiration to achieve excellence at Department of Chemistry. Also, I owe to Prof. Darshane V. S., Ex-Head, Institute of Science, Mumbai for his scientific guidance, valuable suggestions and encouragement during this work.

I owe tremendous debt to Dr. Deshmukh S. N. and Dr. K. M. Garadkar for their scientific guidance, earnest suggestions and encouragement during this work.

I am thankful to Prof. Deshmukh M.B., Prof. Anuse M. A., Prof. Mohite B. S., Prof. Bhosale P. N., Prof. Gokavi G. S., Dr. Desai U. V., Dr. (Mrs.) Salunkhe R. S., Dr. Kolekar G. B., Dr. Chavan S. S., Dr. Kolekar S. S., Dr. Pore D. M., Dr. Dagade D. H., Mr. Rashinkar G. S., Dr. Anbhule P. V., and other teaching staff of the Department for their keen interest and encouragement during the research period.

I express my profound regard and gratefulness to the president Shri. D.B.Patil, Secretary and other members of New College Kolhapur.

I would like to thank the principal Dr. S. J. Naik., teaching and Non-teaching staff of New College, Kolhapur.

I would also like to express my thanks to my colleagues Dr.Vitthalkar L.G., Dr. Momin A.A., Dr. Bajaga S.D., Mr. Patil A.R., Mr. Patil D. H. Mr. Patil S. P. Mr. Sonvane S. R. Miss. Kshirsagar J. S. and Non-teaching Staff for there encouragement.
I sincerely acknowledge the help and co-operation from Chavan P.A., Shelake S. B., Sasane, Jirage Sanjay, Shirish Desai, Lokhande and other non-teaching staff of the Department of Chemistry, Shivaji University Kolhapur.

I am highly grateful to Mr. Lohar for his valuable help. The thanks are also extended to the operators of CFC center personnel Mr. Mohite A. V., Mr. Rane, Mr. Sonandkar Sardar Mr. Kalas S. R. for their timely help and cooperation.

My special thanks are due to my laboratory colleagues Dr. V.M. Bhuse, Dr. Gavali L. V, Dr. Delekar S.D., Dr. Chate P. A., Mr. Sathe D. J., Dr. Asabe M. R., Dr. Kamble P. D., Mr. Rokade R. S., Dr. Khomane A. S., Mr. Jadhav S.D., Mr. Patil N.M., Mr. Vader V.T., Miss. Jadhav A.V., Mr. Sankpal U. B., Mr. Patil R. P., Mr. Patil A. A., and Mr. Sanadi for their kind co-operation and help in every aspect throughout this work.

Had it not been the kind love, care and concern of my father Shri. Rathod C. P. and my mother Smt. Rathod C. C. it would have been impossible for me to reach this stage of my life. As parents, they provided me the entire essential support and encouragement not only for the period of this thesis but throughout my life.

My special gratitude goes to my sisters Miss. Sunita, Miss. Uma, and my brother Mr. Meghraj, Somnath, and Pandurang and my wife Miss.Rohini who have provided me all type of moral and emotional support throughout my life.

Place: Kolhapur

Date: / /20

Shri.Rathod K. C.