ACKNOWLEDGEMENT

It is my pleasant duty to thank my teachers and friends who have been helpful in many tangible and intangible way towards the successful completion of research work and their kind cooperation in meeting my wishes.

I am greatly indebted to Prof. M. A. Shashidhar and Prof. D. K. Desbande, my teachers and my thesis advisors, for alacrity and unstinted cooperation. It is my duty at the present juncture to thank them for their constant and valuable guidance and keen interest taken in the progress of my work.

I respectfully acknowledge Prof. B. Hanumalab Prof. D. C. Patil former chairman and Prof. M. R. Gorbal, Chairman, Dept. of Physics, for their encouragement and support of this work.

My heartfelt thanks are due to Prof. B. G. Mulimani, Prof. A. M. Karaguppi kar, Prof. S. S. Kubakaddi and Prof. V. G. Tulasinger, Prof. R. L. Patil and Prof. G. C. Chikkur for providing computer facility and valuable suggestions which steered me in correct direction.

I am very greatful to Dr. T. K. Gundu Rao and other faculty of RSIC, IIT, Bombay for lending the FTIR and Laser Raman spectrophotometer at the time of work in their laboratory and warm hospitality during my stay.

I take this opportunity to express thanks to all teaching faculty and non-teaching staff of our department.

I owe my thanks to my friends, Asbok Kulli, Asbok Endigeri, Robidas, Sbenoy, Sujeeth George, Raju Patil and Suresh Jakaraddi. I am very much thankful to Late Dr. Prabbu Kulli for his inspiring words.

I wish to owe my respects to my grand father Late Shivappa, grand mother Holtyamma, my beloved parents, Shityogappa, Gouramma, uncle Dr. B. S. Navati, aunti Smt. Prema, for their blessing and unwavering encouragement. My thanks are also due to my sisters, Rageshwari and Sudha and my brothers Anand, Vasant, Veerendra, Vikas and Yogesh for their help and Co-operation.

I gratefully acknowledge to K.U. authorities for their financial help in the form of research fellowship in the beginning of my work and under D.S.A. at the later stage.

The help of Karnatak University Dharwad is greatly acknowledged for awarding LIRS fellowship.

(M. S. Navati)