## ACKNOWLEDGEMENT

I wish to express deep gratitude to Dr.R.D.Lawangar,
Lecturer in Physics, Shivaji University, Kolhapur, for his
scholastic guidance and encouragement, so generously
provided, during the course of this work. The successful
completion of this work is entirely due to his rich guidance.

I would like to thank Dr.R.N.Patil, Professor and Head, Department of Physics, Shivaji University, Kolhapur, who has been a constant source of inspiration and provided all the laboratory facilities available in the department.

My thanks are due to the authorities of Regional Sophisticated Instrumentation Centre, I.I.T., Bombay, for providing the facilities of EPR and XRD and the University Grants Commission, New Delhi, for providing me a Teacher Fellowship under FIP.

I am very much grateful to the Shiv Chhatrapati
Shikshan Sanstha's authorities and the Principal, Rajarshi
Shahu Mahavidyalaya, Latur, for sponsoring me as a Teacher
Fellow.

I sincerely appreciate the help render by Dr.C.S.
Shalgaonkar, Dr.M.G.Patil, Dr.R.R.Hadgal, Mr.K.S.Daddi,
Mr.R.S.Shinde and Mr.M.R.Patil, Department of Physics,
R.S.Mahavidyalaya, Latur. They have extended a helping hand

whenever I requested during the various phases of this work. My greatest thanks and love go to my family members for their moral support.

I express my appreciations to Mr.V.V.Patil, for the excellent type of the present dissertation work.

Place: Kolkapur

Date: 10-7-1986