## ACKNOWLEDGMENT

I have great pleasure in expressing my deep sense of indebtedness and heartfelt gratitude to Dr. C. H. Bhosale, Reader, Department of Physics, Shivaji University, Kolhapur for his expert and valuable guidance and continuous encouragement given to me during the course of work.

I am highly grateful to late Prof. S. A. Patil, Head, Department of Physics, Shivaji University, Kolhapur for making available the laboratory facilities. I acknowledge my thanks to Prof. M.K. Soudagar, Head, Department of Physics, for his help during the completion of the work. I am indebted to Dr. P. S. Patil, Dr. M. D. Uplane and Dr. K. Y. Rajpure for fruitful discussion and valuable suggestions during every phase of my work.

Further I wish to acknowledge the University Grants Commission, Western region, Pune for awarding me the Teacher fellowship under 9<sup>th</sup> Five-year plan and Rayat Shikshan Sanstha, Satara for sanctioning the study leave. It is my solemn duty to thank Principal R.S. Shete of S.S.G.M. College Kopargaon, for his continuous encouragement and timely co-operation during the course of my work. I am also thankful to departmental colleagues from S.S.G.M. College for sharing my work in my absence.

I express my gratitude to my colleague Mr. N. S. Gaikwad, Mr. A. P. Torane, Mr. A. R. Patil, Mr. Suresh Belge, B. J. Lokhande for their experimental help. I am thankful to all my teachers, as well as administrative and workshop staff of the Physics Department and USIC - CFC staff for their co-operation.

I desire to record my thanks towards my family members for creating an environment which helped me to complete this work in time.

Place: KOLHAPUR

Date: 19.6.2002.

Mr. Chaudhari B. N.