

A C K N O W L E D G E M E N T

I am greatly indebted to Dr. S. H. Chavan, Reader, Department of Physics, Shivaji University, Kolhapur for his invaluable guidance, stimulating discussions and constant encouragement that I received through the present investigation. I express my sincere thanks to Prof. K. L. Narayana, Head of the Department of Physics, Shivaji University, Kolhapur, for encouragement and making available all possible facilities in the department.

I am very much grateful to Prof. R. N. Patil for his invaluable suggestions and encouragement through the present work.

I take this opportunity to express my sincere thanks to Dr. S. R. Sawant and Mr. A. B. Kadam for their useful suggestions and thankful to Mr. N. D. Gurav for his kind co-operation in solving the computer software problems in the present work.

I am grateful in particular to Mr. T. S. Magadum, Mr. U. N. Kulkarni, Mr. R. S. Deshmukh, Mr. D. V. Pawar and Miss. Ashwini P. Kulkarni for their experimental help, and who helped with their inquisitive mind to clarify many points in the presentation.

I am indebted to Mr. P. P. Shah, Mr. Vilas N. Shinde, Mr. R. S. Thokale, Mr. B. R. Chincholkar, Mr. S. S. Soudagar, Mr. A. M. Mahajan, Mr. G. N. Shinde, Mr. R. K. Kamat.

I express thanks to my friends Mr. Suahs R. Ghatage and Mr. P. T. Patil without whom I would not have gone through this work.

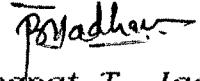
I am thankful to all teaching and non-teaching staff of the Physics department, Shivaji University, Kolhapur for their helping some way or the other.

Last, but not least, I am obliged to my family, no words are enough to express heartiest gratitude in particular to my elder sister Sou. Kalpana, and my parents who have left me free household difficulties throughout this course.

I trust that I have made due and full acknowledgement and I apologize for any accidental omissions.

Place : Kolhapur.

Date : 18/6/99


(Bharat T. Jadhav)