

- ४ A C K N O W L E D G E M E N T ४-

I am wholeheartedly indebted to Dr.N.S.Dhayagude, Lecturer in Physics, D.B.F.Dayanand College of Arts and Science, Solapur for his invaluable guidance and constant encouragement through out the course of this work. I take this opportunity to thanks him for the same.

I am grateful to the Local Secretary Shri Dev Raj Gupta of Dayanand Institutions, Solapur, for his advisory interest in the work and also encouragement and blessings. I am indebted to Principal Dr.N.G.Zunjurwad of D.B.F.Dayanand College of Arts and Science, Solapur.

I can't keep mentioning my sincere thanks to Shri B.A. Managoli, Head of dept. of Physics, Dayanand College, Solapur for his constant encouragement and timely help. I am also thankful to Lecturer Mrs. V.N.Dhayagude for usefull discussions and suggestions.

Author is thankful to Shri M.S.Shejul, Head of Microbiology dept., Shri S.V.Tagare of Chemistry dept. and Shri B.J.Jeurkar, Head of Geology dept. for providing certain laboratory facilities.

Author wishes to record his gratefulness towards Dr.C.M.Sunta and his group of Health Physics Division BARC Bombay in fabrication of linear temperature programmer done by earlier workers of our research laboratory.

It is not possible to forget timely help given during the course of investigations, by Prof.R.N.Patil, Head of Physics Dept. and Dr. C.S.Shalgaonkar of Department of Physics, Shivaji University, Kolhapur. Author is thankful to Dr.Puri of USIC, Shivaji University, Kolhapur for providing XRD facilities. I have been benefitted beinformal discussions with Dr.M.G.Patil.

I record my deep sense of gratitude to Shri Vivek Rajopadhye of Vivek Electronics, Solapur, for providing electronic components in the instrumentation developed, and Shri Dhananjay Dixit of Shilpa Electronics, Solapur, for design of transformer used in wideband amplifier. I wish to record my appreciation for photographs of required quality snapped by Shri Jay Patwa.

It is not possible to forget the affectionate and generous help extended by Shri M.P.Gehdoo of Chemistry Dept. and Shri G.S.Shahane of Physics Department. Assistance given by non-teaching staff of Physics department of my College is worth rembering.

It is needless to mention that the dissertation would have not seen the glowing colours without kind co-operation of my wife Shobha.

Last but not the least, I place on record my sincere thanks to Miss S.M.Khedkar for neat and careful typing of this dissertation.

SOLAPUR

Nov.22,1990



(U.B.Kasture)