

### ACKNOWLEDGEMENTS

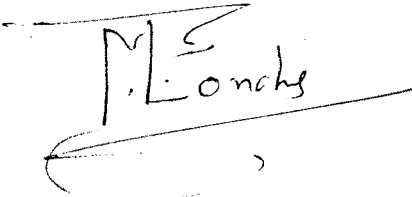
I remain highly indebted to Dr. M.R. Mulla, Department of Physics, Yashwantrao Chavan College of Science, Karad, for his invaluable guidance and encouragement throughout this work. This work would not have seen the light of the day without his constant care and vigilance during the course. I should, therefore, record my grateful thanks to him. I consider it my solemn duty to thank principal V. A. Jamadagni, for his encouragement and inspiration at every stage in the progress of my work. I am also thankful to Dr. S.G. Subnis and Dr. S.H.Jagadale for their experimental help. I personally remain thankful to Prof. S.J. Pise and Dr. V.V. Yeole ( Department of Chemistry) and Dr. S.C. Kale ( Head, Department of Microbiology), for the laboratory help. My thanks are also due to shri. M.A. Gundale, who happened to be my laboratory co-worker during his M.Sc. (T&D) dissertation.

My sincere thanks are due to the Director, Regional Sophisticated Instrumentation Centre, Nagpur, for providing XRD facility. I should also like to record my grateful thanks to Prof. K.L. Narayana Head, Physics Department, Shivaji University Kolhapur, for the help he extended whenever needed.

My thanks are due to the Principal Dr. T.K. Powar , Yashwantrao Chavan Institute of Science, Satara and the secretary, Rayat Shikshan Sanstha for their heartfelt co-operation. I sincerely thank Prof. S.M. Mirajkar, Head, Physics Department, Yashwantrao Chavan Institute of Science, Satara. Prof S.R. Jagtap, Prof. H.K. Kale and all my co-operative colleagues for their continued inspiration.

No, words are enough to express my heartiest gratitudes to my parents, brothers and my wife without whose inspiration this thesis would never have seen the light of the day.

Finally, I thank shri Sharad Mandave (Mayur Typing Centre ) for his expert, neat and careful typing.

  
[ Londhe M.S ]