

ACKNOWLEDGEMENTS

This gives me great pleasure in expressing my deep sense of indebtedness and heartfelt gratitude, to those who encouraged and helped me a lot at various stages of this work.

I am highly grateful to Prof. S.H. Pawar, my research guide whose valuable guidance and inspiration, kind and continuous encouragement enabled me to finalise this work. In spite of his busy schedules he was kind enough to give me time for discussing my work. His able guidance and help is beyond all measure beyond all words. I am extremely fortunate to have him as my guide. I will never forget the help that he has generously and affectionately extended during the completion of this work.

My sincere and heartfelt gratitude to Prof. R.N. Patil, Head, Department of Physics of this University for his good advice and making me available the laboratory facilities and constant encouragement.

My sincere thanks are towards Mr. H.A. Mujawar for his suggestion while carrying out the experimental work. I sincerely appreciate the help rendered by Mr. V.N. Shinde, Dr. P.K. Kulkarni, Mrs. Shrivastava, Mr. S.K. Jamadar, Miss S.S. Vadnerkar, Mr. P.S. Hilage, Mr. V.B. Suryavanshi and Mr. M.P. Kunte.

No words are enough to express my heartiest gratitude to my parents, my husband Dr. N.G. Pawaskar, and my children Priyanka and Samarth and my uncle Mr. G.G. Kuradekar without whose active co-operation this thesis would have not completed.

I am very much thankful to Dr. A.V. Narlikar, Dy. Director, NPL, New Delhi, for his keen interest and also for his constant encouragement.

This work has been made possible by a fellowship awarded by the Department of Science and Technology, Ministry of Science and Technology Government of India, New Delhi.

I am also thankful to all the staff of Energy studies Laboratory, Department of Physics and all others who have helped me directly or indirectly during my research work.

Date :
Place :

P.N. Pawaskar