acknowledgments
I take this opportunity to offer my heart-felt thanks to Prof. A.R. Patel, Head, Department of Physics, Sardar Patel University, for his timely able guidance as also providing me necessary laboratory facilities and his personal interest to get myself acquainted with a new field of research.

I am grateful to Dr. A. Goswami, Head of Electron Microscopy Division, NCL - Poona, for enlightening me with various aspects connected with my research work during my discussions with him. I thank him on this occasion.

I offer my sincere thanks to Dr. T.C. Patel, for his kind help in taking electron micrographs and the diffraction patterns at the appropriate time.

I am thankful to Dr. M.K. Aggarwal, who kindly consented to peruse the manuscript sparing his valuable and precious time. My thanks are also due to Mr. G.K. Shivakumar for the invaluable help rendered in the preparation of the thesis and Mr. S.R. Rao for the final typing of the thesis.

I sincerely thank the staff of the Department of Physics and my colleague Sarvashri Babu, Verghese, John, Kuruvilla, A.V. Rao and Antony for all the seasoned encouragement given during my struggling efforts in my this work.

Words are few to express my thanks for all sorts of help extended to me by Dr. H.S. Gopinath, R.P.T.P. Science College, and Mrs. Gopinath.

Finally, the warm affection showered on me amidst their own pains by my sister Usha and Prof. J.L. Gupta, B.V.M. Vallabh Vidyanagar, is beyond the limit of my thanks giving.

* = o = o = o = o = o =