ACKNOWLEDGEMENTS

It gives me great pleasure to express my deep sense of gratitude and indebtedness to Dr. U.C. Mishra, Head, Air Monitoring Section of Bhabha Atomic Research Centre, under whose guidance the present research work was performed. His kind encouragement and supervision, unstinted support and valuable suggestions were of immense help for me in carrying out the present work.

I gratefully acknowledge very useful discussions held with Dr. C. Rangarajan, Shri J.P.S. Chatha, Shri B.Y. Lalit and Shri R.K. Varma at various stages of my work. I gratefully acknowledge useful discussions held with Smt. S. Gopalkrishnan on Neutron Activation studies. I owe my thanks to Dr. S. Sadasivan for his cooperation in X-ray fluorescence studies, to Dr. S.J.S. Anand for Radiochemical Neutron Activation studies, Dr. R.N. Khandekar for Anodic stripping Voltametry studies, Dr. M.C. Subbaramu for particle size studies and Dr. A.M. Mohan Rao for ethylene studies. Thanks are due to
Shri J.N. Police for making tracings of the figures, Shri P.V. Sreedharan for photocopying the tracings, Shri A. Asokakumar for typing the manuscript and Shri K.P. Rajasekharan for second, accurate and neat typing of the thesis.

I acknowledge cooperation from my wife Farida for correcting manuscript as well as final copy. It was indeed immense help in the final stage of the thesis. I also thank my sons Akif and Sajid for arranging all reference cards alphabetically. I thank my father and my wife for constantly encouraging me for the completion of my thesis.

I thank all my colleagues, who directly or indirectly helped me in my project. Thanks are also due to the authorities of Bhabha Atomic Research Centre for granting me the permission to carry out the present work.