ACKNOWLEDGEMENTS

I am very much indebted and grateful to my guide Prof. M. N. without whose constant support, encouragement and guidance this thesis would have been impossible. I am equally grateful and thankful to my co-guide Prof. K. K. Ghosh for having introduced me to this very interesting and challenging field of research and providing me the important IUE spectral data. Though staying abroad he has taken lot of interest and never delayed in clarifying many through e-mails despite his busy schedules at NASA, USA. I am also thankful to Dr. Soundararajaperumal for his invaluable help and support extended to me at all stages of my work right from the data acquisition and data analysis to the final reading of drafts of all the chapters of the thesis keeping aside his hectic official assignments.

I thank Prof. Ramnath Cowsik, Direcotor, Indian Institute of Astrophysics, Bangalore for allowing me to use library and computer facilities at V.B.O Kavalur and in Bangalore. I am thankful to Dr. Gajendra Pandey, Dr. Swara, Dr. Preethi Kharb who have taught me the usage various IRAF packages. I thank Dr. G. S. D. Babu, Dr. Sunetra, Dr. Harish Bhatt, Mr. P. Anbrazagan and Dr. Munear Pasha for approving my frequent visits to V.B.O., Kavalur, providing transportation, accommodation and allowing to use computers both at V.B.O., Kavalur and I.I.A., Bangalore. I would like to thank the scientific and the technical staff – Mr. K. Kuppaswamy, Mr. S. Pukalenthi, Mr. S. Venkateshwara Rao, Mr. C. Velu, Mr. N. Subramani for their kind gesture and help extended to me during my data reduction and analysis work at V.B.O., Kavalur. I wish to thank very importantly to Dr. Prajval Shasti, Prof. C. Shivaram and Dr T.P. Prabhu for sparing their valuable time for scientific discussions whenever I approached them. Mr. Mohankumar at transport section, Mr. Shankar and Mrs. Nalini in reception desk deserve my sincere thanks for their co-operation in arranging the visits to Kavalur.
Also, I thank Mr A Ananth, Mr J. S. Nathan for their help in solving my problems in using Sun Workstations in the Computer Center, IIA campus and in installing the LINUX OS, IRAF software and the IUE data into my department PC. I acknowledge the help of Dr. A. Vageshwari and Ms. Christina for allowing me to use the Library facilities. I am very much thankful to the library staff for their invaluable help in providing me xerox copies many useful papers and articles.

Most importantly I am thankful to Prof. M S Thimmappa, Vice-Chancellor and Mr K C Ramamurthy, Registrar and Mr K C Dharmeshmurthy, Finance Officer, Bangalore University, Bangalore for sanctioning me study leave of one year to complete the Ph.D. work. I thank my colleagues Prof. Puttaraja and Prof. B. A. Kagali who have been kind enough and co-operative in availing the study leave for about 9 months. I wish to thank my colleagues- Prof. M. C. Radhakrishna, Chairman, Department of Physics, Prof. R. Ramani, Prof. R C Chandramani, Prof. K. A. Nirmala, Prof. C. R. Ramaswamy, Dr. R.V. Anavekar, Dr. B. N. Lakshminarasappa, Dr. M. K. Kokila, Dr. Ramkrishna Damble, Dr. Sharath Anantamurthy, Dr. B. R. Rudraswamy, Dr. N. Nagaiah, Dr. K. Rukmani, Dr. L. C. S. Murthy, Dr. B. N. Meera and Dr. A. R. Ushadevi for their support, encouragement and help by way of sharing my work load during my study leave period. I offer my sincere thanks to Prof M S Talwar, Prof A S Rayamane, Dr M Anjanappa, Librarian (U/C) and Dr B Y Naik of Bangalore University for their support, encouragement and their sincere advices to complete the Ph. D. work at the earliest. I thank my students Dr. Nagabhushan and Mr M Y Anand for their assistance in using Origin (6.2) graphics software. I feel guilty if do not acknowledge the help and support of non-teaching staff of my department.

I am very much indebted to my great mother Shivamma for her blessings and support. My wife Jayashree Doddamani deserves very special thanks for her continuous support and pressure to complete the Ph. D. work at the earliest. I
thank my loving children Madhusudhan and Madhushree for their co-operation extended to me during the time of writing of this thesis. Lastly, I thank Mr. S Vijay, Mr. Rajkumar Solanki, Mr. M. R. Muni Raju and Mrs. S. Poornima Muniraju for taking enough strain in the neat type setting of this thesis.

Date: 15th October, 2004

VijayaKumar H Doddamani