Acknowledgements

Through the journey of life we come across many people. There are a few whom we will never forget. Right from the beginning of my research career I have received help and support, mostly invisible, from many. I express my gratitude to those entangled with my life by inking the following few lines.

I am indebted to Dr. M Dileep Kumar, my research guide, who has helped me in pursuing this research and in other aspects of life. He invoked scientific thought in me and shares his experience with me. His encouragement, support and advice shall be with me for the rest of my life.

I am also indebted to Dr. S. W. A. Naqvi, who practically introduced me to chemical oceanography when I was in M.Sc. SK103, my first and the most memorable cruise, was the beginning of my association with him during which he seeded thoughts of oceanographic research in me. I owe him a great deal for his encouragement, help and advice.

I thank Dr. Erlich Desa, Director, National Institute of Oceanography, Goa for his kind support, encouragement and for making necessary infrastructure facilities available. I also thank Dr. M. D. George, Dr. P. V. Narvekar, Dr. M. S. Shailaja and Dr. S. Y. S. Singbal Chemical Oceanography Division for support and encouragement.

I am thankful to Prof. U. M. X. Sangodkar, Prof. G. N. Nayak, Dr. C. L. Rodrigues and Dr. S. Upadhyay for support and encouragement.

I acknowledge the Council of Scientific and Industrial Research (CSIR) for supporting me with a fellowship, Department of Ocean Development (DOD) for funding and for ship time on boards ORV Sagar Kanya and FORV Sagar Sampada. Thanks are also due to Departments of Space (DOS) and Science and Technology (DST) for supporting the INDOEX and BOBMEX programmes. These programmes helped me collect valuable data from the Central Indian Ocean and the Bay of Bengal. Other supporting programmes included LOICZ and OOS. I also thank ozone-processing team (OPT) of Laboratory for
Atmospheres, NASA Goddard Space Flight Center, Greenbelt, Maryland, USA, for permitting us to use TOMS-UV data.

I acknowledge the invaluable help and co-operation received from the officers and crew of ORV Sagar Kanya and FORV Sagar Sampada (of Shipping corporation of India) during the oceanic expeditions.

Special thanks to Dr. E Saltzman (University of Miami) and Dr. Gillian Malin (University of East Anglia) for their advice in regard to dimethyl sulphide analysis.

I am thankful to Dr. V. V. S. S. Sarma for his help, particularly in dimethyl sulphide calibration, during cruises. Thanks are also due to Dr. Amal Jayakumar for introducing me to gas chromatography.

I am also thankful to Jagadish Patil and Smita Patil for their help with field and laboratory experiments (phytoplankton speciation, enumeration and the shock experiments) and Mangesh Gauns for bacterial counts.

Special thanks are also due to Mukta, Witty, Usha, Hema, Sudheer, John and Mr. Hanumant Dalvi for on board analytical help and Dr. V. S. N. Murty, Mr. M. T. Babu and Mr. V. Tilvi for mixed layer computations.

I am also thankful to Areef Sardar, Mr. Chodankar and Mr. Luis from workshop (MICD), Milita and Anthony of stores and purchase for technical help.

I appreciate my friends Kiran, Bhaskar, Fraddry, Vivek, Shashank and many others for keeping me in good humour and helping me maintain high spirit.

I appreciate Sylvia for her help, support and encouragement.

Above all I find no words to express my gratitude to my parents for their ceaseless efforts to get me to this level of education.

Damodar M Shenoy