Acknowledgements

May I express my heartfelt gratitude and indebtedness to my Supervising Teacher, Dr. P. K. Radhakrishnan, Reader, School of Chemical Sciences, Mahatma Gandhi University, Kottayam, for his inspiring and systematic guidance, without which this work would never have been completed. His valuable advice and constant encouragement are also thankfully acknowledged herewith.

I am also grateful to the Director, School of Chemical Sciences, Mahatma Gandhi University, for his wholehearted support and providing the necessary facilities. The help rendered by the faculty members of School of Chemical Sciences is also gratefully acknowledged.

I remember with gratitude the help rendered by Prof. K. K. M. Yusuff and his research group, Cochin University of Science and Technology, Cochin, to carry out the magnetic measurements. I wish to express my sincere thanks to Dr. K. G. K. Warrier, Scientist, Regional Research Laboratory, Thiruvananthapuram and the Heads, Regional Sophisticated Instrumentation Centres at IIT Madras, IIT Mumbai, Nagpur University, Punjab University, CDRI Lucknow and Department of Chemistry, NEHU Shillong, for providing facilities for the analytical measurements.

I am very much grateful to all my colleagues especially to Dr. M. K. Muraleedharan Nair, Dr. Siby Joseph, Dr. C. R. Vinodkumar and Mr. G. Ajithkumar for their valuable suggestions, wholehearted cooperation and help for the successful completion of this work.

I wish to express my sincere thanks to the library staff, Mahatma Gandhi University, especially to the members of the Documentation Section for their sincere help during the research work. The help rendered by the staff, JRD Tata Memorial Library, Indian Institute of Science, Bangalore, is also gratefully acknowledged. Thanks are also due to the Staff, University Computer Centre, Mahatma Gandhi University, for their sincere help during the computational work of this thesis.
My sincere thanks are also due to Mr. K. A. James and Mr. M. K. Vijayakumar, for the neat drawings, the administrative and the technical staff, School of Chemical Sciences, for their prompt services. I am also grateful to Mahatma Gandhi University, Kottayam, for granting me JRF.

I remember with love, my Parents, Brothers and Sisters for their constant inspiration and moral support. A special word of thanks to Dr. Kishore Tom, my younger brother who helped me a lot during the preparation of this thesis.

I am also thankful to M/s Copy Write, Ettumanoor, for the neat word processing and photocopying of this work.

Above all, I bow my head before God Almighty, for Blessing me with necessary initiative to carry out the work successfully.

Madhu N. T.