Acknowledgements

With continuous inspiration, help, guidance, support and encouragement from all known and unknown sources, my research achieved the mile stone of completion and it is the matter of great honour, indeed a joyous moment and opportunity for me to acknowledge one and all of them.

I, with my humble indebtedness, lots of affection and appreciation; express deep sense of gratitude to my guide, Prof. D. K. RAVAL, who becomes source of inspiration for me throughout my work. With his enthusiastic encouragement, continuous guidance and expertise, I could succeed to reach this mile stone in my life. The words are insufficient to express his parental care and full support throughout the research span.

I sincerely thank Dr. H. S. Patel (Head, Department of Chemistry, Sardar Patel University), Dr. (Miss) R. G. Patel (Ex-Head) and Dr. J. S. Parmar (Ex-Head), for providing necessary research facilities, infrastructure and encouragement throughout the pursuance of the course.

It gives me a great pleasure to extend my genuine thanks to Dr. R. M. Patel (Ex-Head) and Dr. K. H. Patel for their valuable inspirations and suggestions. I also thank the teaching, administrative and technical staff of the Department for their help as and when required time to time.

I gratefully acknowledge all my seniors Dr. Dhaval, Dr. Bhavin, Dr. Jashmin and Dr. Jitendra for giving me the benefits of their knowledge and constructive criticisms during my research work.

My most heartfelt expression of gratitude to lab mates Vaibhav, Jemin, Umesh, Devji, Bhautik, Shailesh and piyush for their kind help during the course of my work.

I would like to express my thanks to all my friends Dr. Chandresh, Shashikant, Divyesh, Pradip, Setish, Chetan, Jigar, Hitesh Dholicya, Hitesh
Barad, Rohit, Jignesh, Harshad, Bhavesh, Tarun and mehul for maintaining a warm and encouraging atmosphere. They made my working in the laboratory very enjoyable. It is my duty to acknowledge all my friends for keeping their patience with me throughout my anxieties during the past years.

I am thankful to Vaibhav Analytical Laboratories, Ahmedabad for providing me the IR spectral facilities.

I am also heartily thankful to University Grant Commission, New Delhi for providing research fellowship under RFSMS scheme.

The genesis of humble achievement truly lies in the inspiration of my beloved parents, Nathabhai and ChandrikaBen who have always been comfortable in all the circumstances during the course of the research. Their blessings which always have been revered treasure of my life. I bow myself in utter humility and complete dedication to them. I am at loss of words to express thanks to my dear brother Harsh for their encouragement in my endeavour. I also thank all my family members for their support.

Last but not least, I offer my prayer to Almighty without whose blessings nothing is possible.

— Abhishek N. Dadhania