ACKNOWLEDGEMENT

First of all, I acknowledge the grace of God, the source of my inspiration and energy.

I express my deep respect and gratitude towards my guide and mentor, Prof. U. C. Pande, Retd. Prof. & Head of the Chemistry Department at Gujarat University, Ahmedabad for his support, suggestions and encouragement. Without his valuable guidance and continuous help my Doctoral Research would not have been completed. I also wish to acknowledge the affection and care showered on me by Mrs. U. C. Pande.

I am also grateful to Dr. S K Menon, Professor & Head of the Chemistry Department at Gujarat University, Ahmedabad for giving me support, suggestions and encouragement.

I am very much thankful to Dr. Pranav Shrivastav for his encouragement and support throughout my research. All the staff members of the chemistry department and all my colleagues have been very supportive and co-operative for which I express my hearty gratitude.

I am extremely thankful to Dr. Nanji Hadia (NTNU Norway), Dr. Suraj Dhiman (BARC, INDIA) and Mr Ashutosh Jani (IIT Madras, INDIA) for their great support to provide literature throughout the research.

I express my sincere thanks to the senior students, colleagues and friends Dr. Pranav Trivedi, Saurabh Patel and Krupa Jani for their help throughout my research. Number of friends have helped me not only in research but also in life through the period.

I am thankful to the Chemistry Department of Gujarat University, Ahmedabad for the excellent research environment. I am also thankful to University Grants Commission, MHRD, Government of India for scholarship. I have a great pleasure in acknowledging CSMCRI, Bhavnagar, INDIA for GC-MS analysis of sample.

Finally I express deep sense of gratitude to my parents and brother for their encouragement and trust.

- Medha Dave