ACKNOWLEDGEMENTS

First and foremost, I would like to pay my homage to THE ALMIGHTY GOD “THE WONDERFUL CHEMIST” of this lovely world, whose blessings have made this venture successful. By His grace I am lucky enough to find a real mentor and philosopher Dr. P. H. Parsania - Professor and Head, Department of Chemistry, Saurashtra University, Rajkot. It is my immense pleasure and privilege to express my profound gratitude to him for his never-ending guidance and perseverance. His keen interest, patience and constant encouragement during my research work have enabled me to put my work in the form of the thesis. Association with him has been a lifetime achievement for me.

I much thankful to Saurashtra University to give me an opportunity. I am also thankful to all faculty members: Dr. A. K. Shah, Dr. V. H. Shah, Dr. H. S. Joshi, Dr. S. Baluja, Dr. M. K. Shah, Dr. Y. T. Naliapara, Dr. U. C. Bhoya, Dr. R. C. Khunt, Dr. F. D. Karia and administrative staff for their encouragement during my research work.

I would like to extend my sincere thanks to my seniors as well as juniors - Dr. Niral, Dr. Sunil, Dr. Paresh, Dr. Vrajesh, Dr. Viren, Dr. Bharat, Dr. Pankaj, Dr. Sandip, Punit, Jignesh, Suresh, Pooja, Leena, Ritesh, Rizwan for their help and cooperation.

I also thankful to Dr. M. B. Patel, B. M. Gabhawala, Late Dr. Kandoi, J. M. Mehta, C. S. Patel, M. G. Rao, Dr. A. B. Pancholi and my colleagues (GNFC-Laboratory parivar) for continuous encouragement during my research work. I especially thankful to Mukesh Prajapati for providing stirrer and other lab equipments.

I thankful to my friends; Sumesh, Umesh, Bharat, Bonney and Himanshu for their appreciation, inspiration and motivation during the tenure of my research work.

I am also indebted to The Directors, RSIC-Chandigarh, ERDA-Vadodara and SICART- V. V. Nagar for instrumental facilities. I would like to extend my sincere thanks to Purvesh Vyas for their analytical help during my research work (Department of Physics, Sau. Uni.).
I express my deepest thanks to Mrs. Vijyaben, Jignesh and Maulik Parsania for the hospitality extended to me during prolonged research discussion at their home during this work.

The never ending process of unsurpassable devotion, love and affection, which was showered upon me by my uncle Satishchandra, aunty Bhadraben, my father Ganpatishanker, mother Shobhanaben, brother Snehal and his wife Darshana, my daughter (Jinal and Khushi), my son Atharva, my cousin (Harsh & Soham) who have enlightened my path and always boosted me to go ahead to reach the goal. Last but not the least; I would like to express my real sense of gratitude to my life partner Manisha (Minu) for her continuous support, understanding and loving care.

Urvish G. Pathak