
ACKNOWLEDGEMENTS

First and foremost, I would like to pay my homage to The ALMIGHTY GOD "Ganesha", is the best Chemist of this wonderful world, without His blessings and inspiration this task would have not been accomplished.

*It gives me great pleasure in acknowledging the support and profound guidance by my mentor **Dr. M. K. Shah** Assistant Professor, Department of Chemistry, Saurashtra University, Rajkot. I consider myself lucky to work his generous guidance His encouragement and constructive suggestions during my research work have enabled me to put my work in the form of the thesis. Association with him has been a life time achievement for me.*

I am grateful to Dr. V. H. Shah, Professor and Head, Department of Chemistry for providing all the necessary facilities in carrying out my research work.

*I am also thankful to **all faculty members**: Prof. P. H. Parsania, Prof. A. K. Shah, Prof. H. S. Joshi, Prof. S. H. Baluja, Dr. U. C. Bhoya, Dr. Y. T. Naliapara, Dr. R. C. Khunt, Dr. F. D. Karia for their valuable suggestion, advices and for providing me good laboratory facilities encouragement during my research work.*

I am also grateful to Sophisticated Analytical Instrumentation Facility (SAIF), "National Facility For drug discovery through new chemical entities development and instrumentation support to small manufacturing pharma enterprises" for providing necessary instrumental facilities.

I am also grateful to department of Physics, Saurashtra University for providing analysis facilities. I am also heartily thankful to Dr. D. G. Kuberkar and his team for his support at Department of Physics, Saurashtra University, Rajkot. Also thankful to CoE, K.S.K.V. Kutchh University, Bhuj for the Scanning Electron Microscopy (SEM-EDX) analysis. I am also grateful

to CSMCRI, Bhavnagar for the TEM-EDX analysis and GPC analysis. Also, thankful to SICART, Vallbh-Vidhyanagar for GPC analysis.

I am also indebted to UGC-New Delhi for BSR Fellowship in Science. I also extend my thanks to INFLIBNET for providing me excellent library facilities.

It is a moment of gratification and pride to look back with a sense of contentment at the long traveled path, to be able to recapture some of the fine moments, to be able to think of the infinite number of people, some who were with me from the beginning, some who joined me at some stage during the journey, whose kindness, love and blessings has brought me to this day. I wish to thank each one of them from the bottom of my heart.

I also thankful to my colleagues Dr. Naimish Chavda, Dr. Rakesh Tada, Dr. Minaxi Mara, Dr. Anita Sharma, Mayank Mamtor, Javed Mahetar, Rohit Maawar, Juvansinh Jadeja, Chandankumar Pashavan and Devang Mokariya for continuous encouragement and helpful discussions throughout the research work.

At this point, I would like to express my deep sense of gratitude to my wife Maya and son Samarth for their love, support and motivation. This accomplishment would not have been possible without you. Thank you.

Last but not least, I would like to pay high regards to my family, to my most adorable Mummy-Papa, Mrs. Sadhana Gondaliya, Mr. Bharatbhai D. Gondaliya without whom I would have been absolutely nothing. I would whatever I am today and whatever I am capable of is only because of their unfailing blessings, never ending hard work and endless love. Although one can never repay the debt towards their parents, I take this small and humble opportunity to say that I love you and thank you for all that you people have done for me. I respect you for nurturing us with such great love, patience, hard work and instilling the best of Sanskaras in us.

A successful work is never a one person job. It is the result of the effort and support of a lot of people. I am so lucky that I got many people around me who was always ready to help me. I take this opportunity to gratefully acknowledge my friends and my colleagues (AKS group) Rajubhai Kakdiya, Yashwantsinh Jadeja, Pinakin, Pratik Ambasana, Dilip Detroja, Ashish Radadiya, Kunal Mehariya, Bijani Sabera, Viki Jain, Hetal Jebaliya, Hardik Senjani, Bharat Baria, Shahrukhkhan Safi, Vishwa Dhinoja, Denish Viradia. (VHS group) Dubal Gaurang, Pankaj Singala, Pratik Talapara, Nayan Bhuva, Raju Vaghasiya, Viral Faldu, Hardik Ghodasara. (HSJ group) Garuang Pandya, Paras Vekariya, Vaishali Goswami, Jalpa Pandya, Reema Rupareliya, Nirav Shah, Pankaj Chovatiya, Mitesh Vekariya. Vimal Kapupara, Dinesh Gojiya, Nilesh Parmar, Tejal Bhatt. (PHP group) Jignesh Patel, Pooja Parsania Rizwan Ghumara, Chirag Patel, Dhaduk Bhavin, Jabal Thanki, Dharmesh Sankharva, Jalpa Chopada. (SHB group) Rahul Talaviya, Kajal Nandha, Paras, Kapil Bhesaniya, Kalpen Chavda, Bhalu Ankita, Ashmita Hirpara. (YTN group) Sagar Gami, Satish Ghelani, Has Mukh Khunt, Babariya Jayesh, Haresh Kathrotiya, Devang Prajapati, Kalpesh Vilapara, Rajapara Jaydip, Arpit Radadiya, Dhananjay Pandya. (UCB group) Vipul Kotadiya, Mita Khunt, Gaurav Bholi, Denish Viradiya, Butani Himanshu, Avani Ranch, Dipti Namera. (RCK group) Kishor Kavadiya, Khushal Kapadiya, Kaushik Lunagariya, Jagruti Bahl, Parth Manawar, Pinakin Kathiriya, Darshana Pandya, Jyoti Gohel for their support. I will really miss them all and I thank them from the deepest bottom of my heart.

It gives me earnest happiness and pleasure to end my work and it is my privilege to thank all those who made my work possible and made my thesis a reality.

*I further extend my sincere thanks to Khoosbu Nariya, and **all non-teaching staff** Chauhanbhai, Acharyabhai, Jityabhai, Suvagiyabhai, etc. of the Chemistry Department for their remarkable help. I would like to thank Ranjitbhai Kanada for glass work and storekeeper Namrataben for providing chemicals.*

Finally, I express my grateful acknowledgment to Department of Chemistry, Saurashtra University for providing me the excellent laboratory facilities and kind furtherance for accomplishing this work.

Lastly I would like to thank each and every one of them who helped me directly or indirectly during this wonderful and lots of experience gaining journey. I apologize if in any case I am missing out any of the names as I am thankful to one and all.

Mitesh B. Gondaliya
