ACKNOWLEDGEMENT

Research is an endless process for acquisition of knowledge, which never achieves milestones merely by an individual effort. The nest of good research is always woven with endless endeavors put by scientists together. The value of information provided by such self-driven peoples is always of high importance. At present occasion, when I am ready to accept the challenges in the field of inorganic medicinal research, I sense that the present exercise for investigation would not have touched objectives without blessing and guidance from dedicated researchers and well-wishers.

I earnestly wish to express sincere thanks and gratitude to my guide Dr. M. N. Patel, Professor, Department of Chemistry, S. P. University, Vallabh Vidyanagar, for his keen interest, valuable guidance, suggestions, constant encouragement and advice throughout the tenure of this study. In addition, he was always accessible and willing to help me. I cannot forget the independence given to work in the laboratory and providing useful atmosphere throughout these Ph.D. years.

My Special thanks also to Department of Chemistry, Sardar Patel University, Vallabh Vidyanagar, a body as a whole, i.e. authority head, Professors, non–teaching staff for their support that have given a shape to this work. I am very much thankful to Dr. Navin Chikhaliya and Mukesh Barot for technical assistant in NMR, IR and UV–Visible spectroscopy laboratory.

I would like to thanks University Grant Commission of India, New Delhi for providing financial support under “UGC CAS” scheme and also to Dr. N. V. Sastry, Co-ordinator of CAS Programme.

I am most grateful to the collaborators for lending me their expertise and intuition to my scientific and technical problems: Dr. S. S. Soni, for electrochemical studies at Department of Chemistry; Dr. D. K. Raval, for IR study of my compounds at Pharmaceutical Department S. P.
Dr. V. R. Thakkar, Ravi R. Patel, Disha Patel and Parth Patel for performing the biological activities at BRD School of Bioscience; Dr. P. Paul and Dr. E. Suresh for single crystal analysis at CSMCRI-Bhavnagar.

My debt of gratitude must go to past members of this institute: Dr. Praduman Parmar, Dr. Promise Dosi, Dr. Bhupesh Bhatt, Dr. Hardik Joshi, Dr. Chintan Patel, Dr. Anshul Patidar, Dr. Rohit Vekariya and Dr. Chetan Sangani for sharing their knowledge, giving scientific advice, and many insightful discussions and suggestions. I am very much thankful to my lab mates, Dr. Parag Karia, Sanjay Gajera, Jugal Mehta, Khyati Thakor, Miral Lunagaria, Darshana Kanthecha, Bharat Pursuwani and Reena Varma, for their useful assistance and friendly environment in the laboratory, to work smoothly. Their presence itself instilled confidence and lifted the sagging spirit. Also I thank my friends in the Department of Chemistry. I thank my past and present roommates, especially, Bhautik, Mehul, Jayraj, Keval and Sandip for the stimulating discussions, the sleepless nights we were working together and all the fun we have had in the last four years.

My debt of gratitude also go to my school teacher Mr. J. D. Saglani (JD sir), Mr. D. C. Bhatt, and Mr. N. K. Kapadiya.

My current position can’t be imagined without the love and support from my family. I would sincerely acknowledge My Parents, for striving hard to provide a good education for me and my siblings. I always fall short of words and felt impossible to describe their support in words. It is with their constant encouragements and their blessing that I have seen this today. The words are insufficient to express my gratitude to my loving Sisters Meghna Tarang Patel and Shruti Hitesh Dholariya for their moral support, altruistic help and constant encouragement. I deeply acknowledge; from the bottom of my heart their contribution to my life and achievements. Words cannot express how grateful I am to have guidance
from my uncle Hakubhai Kothiya and M. K. Bhandari, my cousins Nitin and Piyush, my childhood friend Bhargav.

Above all I thank the Almighty for their choicest blessings that makes everything possible. All can’t be mentioned but none is forgotten.

Finally, my special grateful thank to my wife Krupa and her family members for their constant support in my endeavor.

Thankful to all ever remain.

Pankajkumar A. Vekariya