Acknowledgement

This thesis has been kept on track and been seen through to completion with the support and encouragement of numerous people including my well-wishers, my friends, colleagues and various institutions. At the end of my thesis, it is a pleasant task to express my thanks to all those who contributed in many ways to the success of this study and made it an unforgettable experience for me.

Foremost, I would like to express my sincere gratitude to my guide Dr. Pragna Hitesh Parikh, Associate Professor, Department of Zoology, from the bottom of my heart for her continuous support, motivation, patience, enthusiasm and encouragement. Her support was immense and was right from the first step when I entered my Bachelors up to completion of my PhD thesis. Her guidance always helped me during my research period and her criticism assisted me to correct myself. I can’t forget her hard times. Despite of her ill health and busy schedule she was always there to give her valuable suggestions. Moreover her motherly nature had always guided me at my personal level. Her mentorship was paramount in providing a well-rounded experience consistent my long-term career goals. She encouraged me to not only grow as an experimentalist but also as an instructor and an independent thinker. Her unflinching courage and conviction will always inspire me, and I hope to continue to work with her noble thoughts. With her I also want to express the deepest appreciation for co-operation and parental care offered at many occasions to Mr. Hitesh Parikh. I am also thankful to Yashesh Parikh for his pleasant and brotherly attitude during the tenure of my research period.

My deepest appreciation goes to the valuable suggestions given by Dr. B. Suresh for my research work. I am equally thankful to Prof. Dolly Kumar for her kind and loving nature.

I am thankful to Head, Prof. P.C. Mankodi Department of Zoology for providing facilities during my experimentation work. I want to thank to Dr. Devkar for his great help in the gel documentation. I owe my deepest gratitude to all my teachers in Department of Zoology for their constant support and valuable help. I am grateful to Non teaching staff for their help in various situations.

I would be failing in my duties if I do not acknowledge my seniors, Dr. AyazRangrez, Dr. Khyati, Mr.Chirag Patel and Miss Bhavika. My greatest appreciation goes to Dr.
Ayaz Rangrez. He was always there with me as an elder brother, mentor and his smart thinking always upgraded me and helped me to grew in my research. I owe very important debt to my senior and my friend, Mrs Bhavika Patel Nee Bhavika Desai. She stood by me during the major part of my research work and inculcated in me the research attitude at the initial phase of my work. I am deeply grateful to Mr. Ankur Upadhyay, for his support and help during the last phase of my experimentation which helped me in winding my thesis. I would like to offer my special thanks to Mr. Parth Pandya for his elegant ideas which gave a new direction to my work. Cheers to both of them for creating light atmosphere in the stressing time of my thesis. I am thankful to Miss Khushali Pandya for her caring nature and help in my odd times. I thank all my lab mates and research colleagues for their help during the experimental tenure of my thesis.

I would also like to thank my parents and my siblings whose support was unforgettable and unimaginable. They were always supporting me and encouraging me with their best wishes. They are most important people and I dedicate this thesis to them. Without them I would have made it here.

Last but not the least I am thankful to the UGC (RFSMS), New Delhi for providing financial support in the form of scholarship. I would like to thank to Department of Metallurgical and Materials Engineering, The Maharaja Sayajirao University of Baroda, Vadodara for providing facilities to carry out the metal analysis.

Shalaka Sadekarpawar