Acknowledgment

While a completed dissertation bears the single name of the student, the process that leads to its completion is always accomplished in combination with the dedicated work of other people. I wish to acknowledge my appreciation to all those people.

Though the journey for Ph.D. was very long but it has been a period of intense learning for me, not only in the scientific arena but also on a personal level. This journey would not have been possible without the support and encouragement of my supervisor, my family, my friends, my colleagues and lab mates. I would like to express my gratitude to many people who saw me through this book; to all those who provided support, talked things over, read, wrote, offered comments, allowed me to quote their remarks and assisted in the research.

It is a genuine pleasure to express my deep sense of thanks and gratitude to my supervisor Dr. Varinder Kaur, Department of Chemistry, Panjab University, Chandigarh, who has supported me throughout my thesis with her patience and knowledge whilst allowing me the room to work in my own way. Her dynamism, vision, sincerity and motivation have deeply inspired me. She has taught me the methodology to carry out the research and to present the research works as clearly as possible. It was a great privilege and honour to work and study under her guidance. I am extremely grateful for what she has offered me. I would also like to thank for her friendship, empathy, and a great sense of humour.

I owe a deep sense of gratitude to Dr. Raghbir Singh, D.A.V College, Chandigarh for all his support, encouragement and constructive criticism at various stages during this period and for his kind interest in my work over several years. He shared new ideas/schemes related to my work and helped me to explore efficient methods/procedures. I am deeply grateful to him for the long discussions that helped me to sort out the technical details.

A very special thanks to Dr. Jörg Wagler and Dr. Edwin Kroke, Technische Universität Bergakademie Freiberg, Germany, for solving single crystal X-ray data and for giving invaluable advice, support and encouragement.

I am also extremely indebted to Prof. P. Venugopalan, Chairman, Department of Chemistry, Panjab University, Chandigarh for providing me the requisite laboratory and other essential research conveniences.
I must appreciate the support of teaching and non-teaching staff of the Chemistry department for their cooperation.

No research is possible without infrastructure and financial support. I take this opportunity to sincerely acknowledge UGC, New Delhi for providing financial assistance in the form of Junior and Senior Research Fellowship which propped me up to perform my work comfortably.

A good support system is important to survive and stay same during the research project, heart-felt thanks to my Labs mates: Ruchi Mutneja, Priyanka Narula, Pawanpreet Kaur, Navjot Singh, Jaswant Singh and Hemant Singh for stimulating discussion, for the sleepless nights we were working together before deadlines, and for all the fun we had in the last five years. You all are fun bunch with lots of enthusiasm and optimism. You guys made this journey memorable and enjoyable, which I will cherish forever.

Most importantly, none of this would have been possible without the love and patience of my family. My Mom & Dad have been a constant source of love, concern, support, and strength all these years. God gave me great and supporting parents who always encouraged me and respected my decision. I would like to express my heart-felt gratitude to my parents. I would also like to extend huge loving thanks to my younger brother, Nitish for his love and prayers. Furthermore, I would like to thank my grandparents for his constant blessings. A special word of thanks also goes to my in-law’s family for their continuous support and encouragement.

I am grateful for the love, encouragement, and tolerance of my husband, Ajay, the man who has made all the difference in my life. Without his patience and sacrifice, I could not have completed this long journey of Ph.D.

Last but nevertheless least, Thanks to ALMIGHTY. His constant blessings have provided me the strength to accomplish this thesis work successfully. Today with humility, bowed head, misty eyes and folded hands, I am incapable of expressing my innermost into words. Research is an arduous task, which despite hard labour also requires patience and courage. This would only be made possible with the benediction and grace of Almighty.

(Neha Srivastav)