Acknowledgements

At the very outset, I extend my heartiest thanks to Prof. Ramesh C. Deka, Department of Chemical Sciences, Tezpur University; my teacher and research supervisor, for selecting me as a Ph.D student under his guidance. I truly acknowledge his support and help during my research work. I am indebted to him for providing me the opportunity to visit University College London, London and work with Prof. C. Richard A. Catlow and his group during my research tenure.

I am grateful to Prof. Mihir Kanti Chaudhuri, honourable Vice-Chancellor, Tezpur University for endowing me with the opportunity to carry out my research in a cordial and scientific environment. Furthermore, my sincere gratitude goes to the entire university fraternity for providing me all the basic necessities to make my stay in the campus comfortable during this period.

I truly thank my Doctoral Committee members, Dr. Ruli Borah and Dr. Ashim J. Thakur, Associate Professors, Department of Chemical Sciences, Tezpur University for their valuable suggestions and help during my research period. I thank all the faculty members and staff of the Department of Chemical Sciences, Tezpur University for their cooperation and help at various times.

I thank the Council of Scientific and Industrial Research, New Delhi and Department of Science and Technology, New Delhi for their financial support.

I am deeply thankful to one of the great teachers of my life, G. R. Lalitha, ex-principal, Vivekananda Kendra Vidyalaya, Golaghat whose inspiration and encouragement led me to pursue a career in the field of research. Her spirituality, generosity, kind, affectionate and intense love boosted me with moral support at some of my very crucial moments. I thank all my teachers from Vivekananda Kendra Vidyalaya, Golaghat, Kendriya Vidyalaya, Nagaon and Debraj Roy College, Golaghat who made me capable enough to pursue higher studies.

I thank the Computer Centre, Tezpur University for giving me the opportunity to carry out some of my calculations in the Altix machine and help me solve any
computer related issue.

I am glad to acknowledge Dr. Pusphita Ghosh, Indian Association for Cultivation of Science, Kolkata for her help in providing me innumerable and valuable research literature at different times.

I profoundly thank the reviewers of my manuscripts for their valuable comments and suggestions which helped me to improve my research work.

I especially thank my friend, Ms. Papia Dutta, whose congenial company made my stay in this campus so pleasant. I must acknowledge the immense help, support and encouragement she gave me at many difficult moments.

I thank all my labmates, research scholars of the Department of Chemical Sciences and friends from other departments-Priyakshi, Julee, Pratisha for helping time to time.

I must thank all the hostel menials who made me feel at home with their love and affection during my stay in the hostel. I must mention their unconditional care during my ill health.

It is difficult to jot down in mere words my gratitude towards Mr. Shantanu Konwar for his immense help and constant support. I am very grateful indeed to the Almighty for having a friend like him in my life who stood firm by my side at every moment.

Last but not the least, I must thank Ma, Deuta and my sister, Jupi for their love, support, blessings and scoldings which has helped me to overcome all the hurdles that came across my path and kept alive my zeal to continuously focus on my research work. Special thanks goes to Tarun jethpeha, Lily jethai and Dolly ba for their help and continuous enthusiasm.

I would like to thank all the well-wishers for their blessings and prayers which encouraged me to complete this work.

Date: 
Place: 

(Subhi Baishya)