

## Acknowledgements

*This thesis is the result of the Research work done by me whereby I have been accompanied and supported by many people. It is a pleasant opportunity for me to express my gratitude for all of them.*

*First and foremost, with a deep sense of gratitude, I wish to express my heartiest thanks to my guide, Prof. Padmaja P. Sudhakar for her never ending enthusiasm and continuous flow of suggestions and constant encouragement throughout the course of this investigation.*

*I am thankful to Prof B.V.Kamath for the support for his constant support through out my work.*

*I am also thankful to Prof. N.D.Kulkarni, Head Department of Chemistry for the constant support during Research work.*

*I deeply thank Dr. B. Sreedhar, Division of Inorganic and Physical Chemistry, Indian Institute of Chemical Technology, Hyderabad for his constant support for various analysis.*

*I would like to thank Prof Mithes Sarker, for his support in analysis.*

*I also would like to thank Dr. Shivaram and Dr. Sahoo for their help in analysing my samples with Raman.*

*I would like to thank Dr. Girish Kunte, IISC Bangalore for his help with Raman analysis*

*I deeply thank the Department of Chemistry, The Maharaja Sayajirao University of Baroda for giving me the opportunity to work in this Department and smaking all the facilities available for my research work.*

*I would like to thank Dr. P. K. Mehta, Department of Physics, The M. S. University of Baroda, for helping me in the XRD measurements.*

*I would like to thank Dr. Ganpati, Department of Geology, The M. S. University of Baroda, for helping me in the TGA measurements.*

*I would like to thank: Lab mates, Shilpi, Ronak Bhatt, Harnish Soni, Rahul Bhatt, and Mohini for their constant support throughout my research work.*

*I would thank all Research Scholars in Department of Chemistry for helping in analysis and for the constant support during my Research work.*

*I would like to thank Revathy Mam for her support throughout my Research work.*

*I would like to thank all Non-teaching staffs in Chemistry department for their help.*

*As always it is impossible to mention everybody who had an impact to this work however there are those whose spiritual support is even more important. I feel a deep sense of gratitude for my Parents, brothers and sisters.*

*Also I am very much thankful to Chama massi for taking care of my Son Adithya.*

*S. Ageetha*