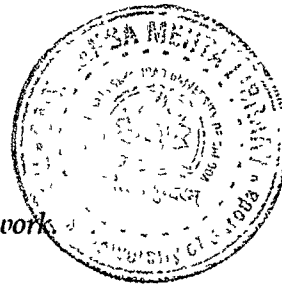


Acknowledgement



First of all I am thankful to God for providing me with courage and strength to work.

I wish to express my sincere gratitude to my guiding teacher, Prof. D.R.S. Somayajulu for the esteemed guidance, kind support and constant encouragement during the course of my research work. I extend my sincere thanks to him, for valuable suggestions at every stage. His concern and interest have been the driving force behind me, through which I could perceive my dreams.

I deeply acknowledge my friend and colleague Mr. Mukesh B. Chawda. It would have been impossible to complete this work, without his unflinching help at all stages.

My sincere thanks to Dr. K. C. Sebastian, for valuable discussions and help in many ways.

I would like to thank Dr. Mitesh Sarkar for his valuable suggestions, help and cooperation during the work.

I sincerely thank to Prof. C. F. Desai (HOD) for his interest and extending the facilities during the course of work.

I would like to thank Prof. Ajay Gupta for extending user facility at IUC- Indore and the scientists, especially Dr. Raghvendra Reddy, Dr. N.P. Lalla, S. Bhardwaj and Alok Benargy who helped me in measurements at IUC Experiments.

I also thank Dr. K.Venugopalan and Dr. N.Laxmi for extending their experimental facilities at M.L.S.University, Udaipur. Their support in every aspect was appreciated.

I am thankful to Dr. Madhavrao from the Department of Chemistry, M S U for allowing me to utilize the weighing facility available with them.

Not to forget the teaching faculty of Department of Physics, for their constant encouragement in completion of my work. I also thank my Senior colleagues Mr. Naresh

Patel, Dr. Dhiren Shah, Dr. K. N. Vyas, Dr. P. H. Soni, Dr. S. M. Vyas, Dr. N.D.Chavda, Dr. B.P.Shah, for sharing their long research experience.

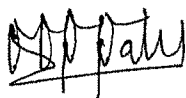
The cooperation of non-teaching staff was admirable. Especially Mrs. Sangeetaben was very supportive with administrative work. Thanks to all of them too.

I would like to extend my thanks to my friends Milind Kawatkar , Amit Parikh, Pranav Vakil, Dinesh Nair and Rohit Makwana for their timely help.

I also extend my thanks to all the research scholars in the department for their support from time to time.

I am grateful to my family –my parents, my wife and child who were so kind and liberal in their cooperation, without which it would have been impossible to put in long hours in my work.

Last but not least, I am thankful to all those who have supported me indirectly in what so ever manner during this work, whom I might have missed inadvertently.



Narendra P.Patel