Acknowledgement

It is a matter of immense gladness and fortune for me to show deep sense of indebtedness to Prof. Swapan Kr. Dolui for his dynamic guidance, constant encouragement and moral boosting that I have received during the work at Tezpur University. It is worth in mentioning, I shall be highly obliged to him for all the time.

I wish to thanks Prof. Samita Basu of Saha Institute of Nuclear Physics for helping me to record and analysis of Fluorescence spectra and inspiration during the stay at SINP, Kolkata.

My respect and sincere thanks goes to Dr. D. Srinivas of National Chemical Laboratory, Pune, India, for his find assistance and analysis of Electron Paramagnetic Resonance spectra.

I would like to thanks Dr. S. Dey of Regional Sophisticated Instrumentation Centre, Shillong, India, for providing micrographs in Scanning Electron Microscope. I am thankful to Mr: B. Gohain for his support by timely recording of FTIR spectra. I should also thankful to P. S. Baruah and H. Gogai for their help during the research work.

My special thanks goes to our research group; Md. Ilias Ali and Ms Tapasi Kotoky who assisted in different situations and we shared our experiences.

I should remain thankful to Dr. Ramesh Ch. Deka for his kind help and encouragement during the work.

I express my hearty thanks to all of my friends including Binod, Diganta, Jatin Jyotishmoy, Kalyan, Pankaj, Palash, Paritosh, Parasha, Nandini, Rabiu, Rashmi, Sibdas, Subhangshu, Surasshree for their help and encouragement in different occasions.

I am grateful to Mrs. Sutapa Dolui for her constant encouragement and kindness.
I must thankful to University Grant Commission, New Delhi, India for offering Teacher Fellowship under Faculty Improvement Programme (FIP) to complete the research work. I should thankful to the Principal and Governing Body of Chaiduar College, Gohpur, Assam for allowing me to work on deputation.

The blessing and constant inspirations of my parents have supported me to complete my work. My wife Priyansha (Mithu) also deserves my hearty thanks for constant encouragements and co-operations during the work. I should say thanks to my younger brother Manoj and sister Malabika.

I am also remaining grateful to the authorities of Tezpur University for granting me the permission to fulfill this work.

Least but not last, I offer sincere thanks to all of my friends, relatives and well-wishers for their kind support in this work.

Date: 28-Dec-2005

Raju Ojah