

ACKNOWLEDGEMENT

I express my deep gratitude to Dr. Parag S. Roy, Professor of Chemistry, University of North Bengal, for his constant advice and guide throughout the research period. I am also grateful to all the teachers of the Department of Chemistry, University of North Bengal, for their encouragement and persistent interest in this work. During my whole research period, I have received constant assistance from the staff of this department. I also acknowledge the help of my colleagues in day – to – day research work. I am also expressing my thanks to the Staffs, Officers and others, particularly the USIC, University of North Bengal for the co-operation and services they have extended to me during my research tenure.

I would like to thank the CSIR, New Delhi for a research fellowship to me (JRF & SRF), the Department of Science and Technology and University Grants Commission, New Delhi for financial support to my research guide (Professor P.S.Roy), Indian Association for the Cultivation of Science, Kolkata for microanalytical data; RSIC, CDRI, Lucknow for ESIMS, NMR spectra and for some microanalytical data. Some of the NMR spectra were recorded by FTIR, Mumbai; IISc, Bangalore and IICB, Kolkata. CD spectra were recorded by the IICB, Kolkata. The EPR spectra were recorded by the IIT, Mumbai. DPV spectra were obtained from CSMCRI, Bhavnagar. Some of the microanalytical data and IR spectra were provided by the RSIC, NEHU, Shilong. Atomic

Absorption Spectra (molybdenum) were provided by Dr. M.C. Saha, G.S.I. Kolkata. X-ray diffraction data for one compound were obtained from the SAIF, Madras as a paid technical service. All the above services are heartily acknowledged. My earnest thanks to Prof. Reijo Hämäläinen, University of Helsinki, Finland for determining the X-ray crystal structure of one of my complexes.

I am lacking words to express my gratitude to my elder brother, Matiur Rahaman, without who's support and help this thesis could not have been completed. I also take the privilege to acknowledge the contributions of my beloved parents ; the support and services provided by my wife, Waresin Ara Begom Amin and other members of my family and friends who have played important role in my career building and have constantly stimulated my interest in research works.

Department of Chemistry,
University of North Bengal,
P.O. – North Bengal University,
Dist. – Darjeeling,
Siliguri – 734013,
INDIA.

Md. Afsar Ali
19.8.2008
(MD. AFSAR ALI)