Acknowledgments

“In the name of ALLAH the most beneficent and merciful”

First of all, all thanks and gratitude should be to Allah the Almighty, without whose blessings this work would not have been accomplished.

“I feel immense pleasure in expressing my regards, deep sense of gratitude, heart-felt devotion and sincere thanks to my respected teacher and supervisor, Dr. Rafiuddin, Reader, Department of Chemistry, A.M.U., Aligarh, who, despite his busy schedule, provided with me excellent guidance, motivation, constant help and took a keen interest in my thesis, without whose untiring efforts and able guidance this work would have never taken the present shape. It was a great opportunity to work under his supervision.

I pay my special thanks to the chairman, Department of Chemistry, A.M.U., Aligarh, for his unfailing support, valuable suggestions and guidance during my study period in this department.

I would like to pay my humble and sincere thanks to my teachers for their help and encouragement.

I thank my Lord for giving me nice parents Mrs. Ismet Hussain and Mr. Mohd. Mujahid Hussain whose, care, sacrifice and sustained efforts enabled me to acquire knowledge. Whatever, I am today is because of their prayers, love and care. Heartily thanks to my brothers Mr. Mohd. Kashif Hussain and Mr. Mohd. Danish Hussain for their encouragement and moral support.

I owe my heartfelt gratitude to Mr. Mohd. Zain Khan for his kind help in various ways throughout my research work. He was really cooperative, supportive and at times caring too, to extend his helping hands to me.

Expressions & emotions fail to find words to highlight the role of my Friends, who are always there as pillars of support, whenever I need them. Nayyar, Ruchi, Nida, Batool, Farah, Sadaf, Aimen, Asma, Armeen, Bushra, AnJulia. I am very thankful to my labmates Dr Sarfaraz, Dr.
Fakhra, Dr. Tanvir, Dr. Zoya, Mujahid, Dr. Ishaat, Farah Khan, Dr. Saba, Neeti, Pradeep, Shazia, Ahlam, Shaila, Urfi, Tajuddin and Rami for their valuable suggestions and support during my research work.

I would also like to express my deep gratitude to my uncle, Mr. Asad Yar Khan, for his valuable suggestions and editing during thesis work.

My special thanks go to Dr. Mohammed Hassan Ali Saleh and Dr. Niyazi al Aeraqi who have always been a source of strength, inspiration and encouragement to me throughout the work and have always prayed for my success.

I must acknowledge my sincere thanks to Professor Aleemuddin, Dept. of Applied Physics and Dr. Khalid for providing Impedance measurement facility.

I am thankful to Prof. Kamaluddin, HEAD Department of Chemistry, Indian Institute of Technology (IIT), Roorkee and also to the Indian Institute of Technology (IIT), Delhi for providing XRD, DSC and SEM Analysis.

I am equally thankful to the staff of the Seminar Library of the Department. My thanks are also due to the office staff for their help during the session.

I would like to pay my sincere thanks to non-teaching staff of the department.

The financial assistance provided by University Grant Commission (U.G.C), Govt. of India, and New Delhi is duly acknowledged.

Last but not the least, with all faith in the Almighty I place this work in the hands of my examiners with the hope that they will bear with the shortcomings that might have crept into this thesis inadvertently.

(Saima Sultana)