Acknowledgements

During the research work, I have been accompanied and supported by many people. It is great pleasure to take this opportunity to express my gratitude for all of them. With utmost regard and sincerity, I would like to acknowledge and extend my innermost ardent hood to the living encyclopaedia, my esteemed and worthy supervisor Prof. (Retd.) Om Prakash, Department of Chemistry, Kurukshetra University for the erudite and meticulous supervision and never failing patience, which gave me vital encouragement and moral support. His painstaking efforts, immense insight, inspiring attitude, evolutionary ideas and enthusiasm enabled me to complete this research work. It has been great honour to work with him.

I owe my sincere thanks to Prof. R. C. Kamboj, Chairman, Department of Chemistry, Kurukshetra University, for providing laboratory facilities.

Thanks are due to Dr. Sanjeev Arora, Associate Professor, Department of Chemistry, Kurukshetra University and Dr. Rashmi Pundeer, Assistant Professor, Department of Chemistry, Kurukshetra University, for their ever helping attitude and enthusiastic approach.

My earnest thanks are due to my seniors Dr. Ajay Aggarwal, Dr. Ravi Kumar, Dr. Vikas Bhardwaj, Dr. Deepak Kumar, Dr. Vinod Kumar, Dr. Richa Prakash, Dr. Kamaljeet Pannu, Dr. Rajesh Kumar, Dr. Mayank Kinger, Dr. Rajeev Kumar, Dr. Rajkamal Sharma, Dr. Nisha Sharma, Dr. Shilpy Aggarwal, Dr. Pooja Ranjan and Dr. Reshmi for their valuable suggestions.

With genuine perception of moral obligations, I acknowledge my sincere thanks and appreciation to my colleagues Mr. Khalid Hussain, Ms. Parveen, Mrs. Sushma, Ms Poonam Lohan, Mrs Vijay Kiran, Mr. Jasbir, Mr. Manoj Sethi, Mr. Deepak Wadhwa, Ms. Rita, Ms. Geeta, Mr. Dinesh, Mr. Satish, Mr. Sita Ram, Ms. Poonam, Mr. Virender, Ms. Ekta, Mr. Sunil, Ms. Rimpy and Ms. Pooja for their co-operation.

I am also in debted to Mrs Radhika Joshi and Mr. Chetan Moudgil, Research Scholars, Department of Microbiology, Kurukshetra University for providing me the antimicrobial results.

I greatly acknowledge Non Teaching Staff, Department of Chemistry, Kurukshetra University, for their sincere co-operation.
One cannot forget the strength and support one gets from the family. With gratitude and reverence, I acknowledge and admire the unbound love, constant inspiration and moral support bestowed on me by my Grandparents and nani ji, my parents, my elder brother and bhabhi, my uncles and aunts and my younger brother for their affection sincere advice and assiduous efforts they gave in all walk of my life.

I am in dearth of words to express my love and deep sense of gratitude towards my in-laws for their great support which made it possible to fulfil this task.

I will be failing in my duty if I do not express my love and thanks to my dear son Vinayaka Kaushik for the sweet love he showered upon me which gave me support to go through tough times.

Transcending all this, the unbound love, affection, moral support, tireless efforts and constant inspiration of my husband Mr. Deepak Kaushik without which, the present effort would have remained an unrealized dream and mere thanks would not suffice for it.

Financial assistance from Kurukshetra University in the form of URS and Defence Research and Development Organisation (DRDO), New Delhi, are thankfully acknowledged.

I would like to place on record due thanks to SAIF, CDRI, Lucknow and Mr. Avtar Singh, RSIC, Panjab University for carrying out various analyses required for present work.

Lastly, my thanks are to all those well-wishers who directly and indirectly helped me in completing the research work, and to God, who made all things possible.

(NITYA SHARMA)