ACKNOWLEDGEMENTS

It gives me great pleasure to express my gratitude to my supervisor Dr. A. Lalitha for giving me the chance to conduct my Ph.D. work with her. She has always generously supported me and her wise guidance and her strong passion for science helped me to grow personally and professionally. Throughout my research, her belief and trust in my abilities allowed me to grow as a chemist and strengthen my confidence.

I am indebted to Dr. V. Raj, Professor & Head, Department of Chemistry, for giving me a chance to do my research work at Periyar University. I would like to thank all other scientific and non-scientific staff in the Department of Chemistry Periyar University for their help and cooperation given to me in completing my research work successfully.

I also would like to express my sincere thanks to Dr. P. N. Arunachalam for his support and encouragement.

I am thankful to my colleagues Dr. K. Sivakumar, S. Ramesh, K. Parameswaran, Mrs. K. Revathy, P. Sivaguru, Ms. C. S. Maheswari and R. Ramesh for their company, discussions and help throughout the course of my work. They have been a constant source of information and inspiration.

I am obliged to my parents, brother, brother-in-laws, sisters, my friends and other family members for their love, unfailing support, tremendous patience, sacrifice and encouragement they have shown in their own way during my long period of studies. They have been a constant source of strength and inspiration for me.

I am extremely grateful to my wife Kokila for her parental care and dedication throughout my research work. The work would not received this dimension, had it not been enfolded without her support and constant encouragement.

Finally I am grateful to the CEO, Syngene (Biocon Ltd) for giving me the opportunity to do the Ph.D., work.

(P. THEERTHAGIRI)