ACKNOWLEDGEMENT

I feel elated in thanking my supervisor Prof. L. K. Kaliyaperumal, Head, Department of physics, Pondicherry Engineering College, for his valuable suggestion and skilled supervision to carry out this research work. It is a great pleasure in thanking him for the patience he has shown in listening to all my problems regarding this project and for his excellent guidance, without which this work would not have reached its goal.

My sincere thanks to Dr. R. Murugan, Asst. Professor, Department of physics, Pondicherry Engineering College, whose remarkable ideas and supervision made me to do the research work successfully.

I wish to express my sincere thanks to Prof. T.G. Palanivelu, Principal, Pondicherry Engineering College, for permitting me to carry out this research work in the Department of Physics, Pondicherry Engineering College, Pondicherry.

My sincere thanks to Prof. S. Subramanian, Professor, Department of Chemistry, Pondicherry Engineering College,

I gratefully acknowledge AICTE, New Delhi, for extending me the financial support to carry out this research work.
I would also like to thank all the teaching and non-teaching staff and the research scholars of Department of Physics and Chemistry, Pondicherry Engineering College, for their cooperation during this research work.

Last but not the least, I would like to thank my Parents, husband, all my family members and friends, who, inspite of their own difficulties, have stood as a constant source of inspiration in every stage and shown moral support to carry out this research work successfully.