ACKNOWLEDGEMENT

It is my proud privilege to express my deepest sense of gratitude, immense indebtedness and regard to my supervisors Prof. Padma Chatterjee and Prof. Parthadeb Ghosh, Department of Botany, University of Kalyani, Nadia, West Bengal for their valuable and sympathetic guidance, constructive suggestions, constant encouragement and necessary suggestions, which helped me a lot to pursue this research work smoothly. Without their support the thesis would not have been materialized. I have high regards to them for giving enough space to my ideas and suggestions, at the same time giving a right shape to those ideas whenever required. Their continuous help and useful advice during the course of my doctoral program are humbly acknowledged.

I am grateful to University of Kalyani, DST- PURSE and UGC for providing me the research grant. I am also thankful to University of Kalyani for providing me the fellowship during my doctoral programme.

I would like to convey my gratitude to Dr. Ayan Bandyopadhyay, Former research scholar, Department of Chemistry, University of Kalyani, Nadia, West Bengal for being so kind to provide me valuable suggestions and constructive ideas during my doctoral program.

I am also indebted to the Department of Chemistry, University of Kalyani, Nadia, West Bengal, Indian Association for the Cultivation of Science, Kolkata and Indian Institute of Chemical Biology, Kolkata for providing instrumental facilities to carry out my research programme.
I convey my sincere thanks to Prof. Chandan Sengupta and Dr. Sudipta Roy (H.O.D.), Department of Botany, University of Kalyani, Nadia, West Bengal for their help and useful suggestions during the period of my research. I would also like to extend my heartfelt thanks to all the other faculty members, former heads and all staff members of Department of Botany, University of Kalyani, Kalyani for their kind support during the study period.

I am thankful to the present and former research scholars of the Department of Botany, University of Kalyani, especially, Neela Das, Ajoy Ghosh, Suraj Sk, Saswat Ojha, Sinchan Adhikari, Soumen Saha, Sanjib Kumar Chattopadhyay, Surya Shekhar Das, Swati Das, Abdul Kader, Satadru Pramanik, Hemanta Kumar Dutta, Tapoti Das, Dipak Paul, Abhishek Pal, Sandip Haldar, Dr. Supriya Roy Mondal, Sanoaj Sk for their constant support. I am also thankful to Bikash Mandal and Naresh Bashfore, Laboratory attendant of Department of Botany, University of Kalyani, for providing all the supports whenever required during my lab work.

Words seem to be inadequate to express my thankfulness to Mr. Prabuddha Sur, Technical Assistant, Department of Chemistry, University of Kalyani, Nadia, West Bengal for extending his full co-operation during my lab work.

Finally, I am deeply indebted to my parents Sri Nikhil Kumar Ghosh and Smt. Sumitra Ghosh for being with me whenever and wherever I needed them for their spontaneous love, affectionate care and full moral support.

Dated: ...........................................

Place: Kalyani, Nadia. (ARGHYA GHOSH)